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SHENYANG INTERNATIONAL ENGINEERING CONSULTING CENTER

Research Report



CITY DEVELOPMENT STRATEGY



SHENYANG □ CHINA

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CITY DEVELOPMENT STRATEGY

1.0 Brief Introduction

- Shenyang is located in the Northeast part of China with a history of 2300 years as a city. It covers an area of 12980 square kilometers with a population of 6.851 million people. The annual growth rate is 1.6 per cent with a density of 528 for each square kilometer.

For Geographical Location of Shenyang, refer to Figure 1.

- Shenyang is the provincial capital of Liaoning, a manufacturing base in China and the center of traffic, trade and commerce, science and technology, tourism, information and finance. It is closely connected to national and international relations by railways, expressways, civil aviation, long-distance digital telephone system and Internet.
- Shenyang is a rapidly developing large city with the gross domestic product of RMB 111.6 billion yuan in 2000 for a growth rate of 10.3%. The investment of fixed assets amounted to RMB 26.2 billion yuan with a growth rate of 9.2%. The domestic trade volume amounted to RMB 161.7 billion yuan with a growth rate of 10.3%. The foreign trade volume amounted to RMB 22.8 billion yuan with a growth rate of 48%. The Proportion of people receiving education is 96.3% with an urban unemployment rate of 2.31%, children death rate of 1.1% and poverty-stricken people proportion of 1.5%.
- The city development of strategic priority covers acceleration to urban infrastructure construction, improvement of ecological environment, upgrading of manufacturing level, reduction of poverty-stricken people and increase of administration efficiency. With a boundless space and great potential, Shenyang can achieve its goal of "Becoming an international metropolitan city full of vigor and vitality".
- The research of city development strategy is conducted with the full support from U.N. Population & Residence Center and the municipal Government. Starting from the analysis of macro-political and economic nation with the economic situation both at home and abroad in combination with the superiority, inferiority, opportunity and challenge to Shenyang, the city development strategic vision, action plan and project were proposed and optimized, most of which have been adopted by the municipal government.
- In the implementation of urban development strategic projects, emphasis is laid on the involvement of relevant government departments, non-government groups, private delegates and citizens, which will facilitate the all-around presentation of citizen's wish and interests by the urban development strategy.
- A series of investment symposiums, consultancy meetings on key and priority fields, appraisal and demonstration conferences were held, with the relevant government departments, public agencies, non-government groups and private delegates all participated in. Their views and proposals have all been brought into related fields after consultation and processing.
- The participation of relevant government departments has made the research achievements of urban development strategy more directional and accurate. It will further make clear the duties of government officials and be more favorable to the implementation of the urban development

strategic plan. The involvement by non-government organizations, individuals and delegates from the business circles can represent the interests of social stratum and upgrade the demonstration and assessment level of the projects.

2.0 The Vision

In the new century the assumption for Shenyang city development is to build “ an international metropolitan city full of vigor and vitality”. At the present crucial period for development, an important period for realization of the gearing to international economy, all-around construction of a well-to-do society and execution of urban modern construction, the Government will continuously carry out the sustainable development strategies of reform and opening up, invigorating the city through science and technology, expansion of urban functions together with the whole citizens under the leadership of the state and the provincial government with a high sense of responsibility and mission. The starting point is to raise the people’s living standard and the aim is to promote a coordinated development of economy, society and environment.

2.1 Components of the Vision

- China’s advanced manufacturing base of equipment, base of new and hi-tech industrial production and demonstration base of modern agriculture.
- Regional trade and commerce, finance and information center.
- Model of structural reform of market economy.
- Perfect integration of long-standing cultural heritage and natural resource with modern civilization.
- Home where citizens can live and work in peace and contentment.

2.2 Missions

- The national economy continues to grow rapidly and soundly with an annual growth rate of more than 10% for gross domestic product financial revenue and disposable income of city dwellers and rural residents respectively. Great progress is made in the strategic readjustment of economic structure. The fundamental position of agriculture is strengthened and the proportion of new and hi-tech industrial sector in the whole city’s industries and that of modern service trade in the whole service sector are remarkably increased. The distribution of state owned economy and structure of ownership will become more rational.
- An all-around acceleration of modernization of urban infrastructure with priority given on the construction of traffic, water source, residential quarters, Hunnan New Area and urban environment. To build Shenyang into a cosmopolitan city with rational layout, perfect facilities, sound environment and social civilization.
- Provision of the city dwellers with quality service and high economic income and drastic reduction of urban poverty-stricken people. Continuous upgrading of citizens’ education, enlargement of a system for maintaining a minimum standard of living and continuous reduction of unemployment rate.
- Participation in the international division of labor and competition in a larger scope and higher

level, acceleration of the gearing and blending to world economy and maximum utilization of international investment.

- Acceleration of the establishment of modern enterprise system in SOE. Quick advancement of equity system reformation in all the medium and small enterprise and perfection of the organizational form of enterprise equity. Encouragement of the transformation of SOE into joint stock limited company set up by several founders. Trans-regional, trans-sectoral and trans-ownership investment and operation should be advanced.
- Promote a shift in government function, streamline government organizations and workers. Establish an administration system of open government affairs, high work efficiency, good coordination, standardized conduct and just and clean government. Improve the government's way and means to administer economy and society, narrow the scope of direct involvement in economic activities by the government and shift the government's functions to the formulation implementation of plans and intensification of supervision and management in a real sense.
- Ensure the effective execution of the national and local environmental regulations, rationally develop, utilize and protect state land resources, intensify ecological construction and environmental protection and enhance citizens' awareness of ecological environment and public involvement. Water and atmospheric pollution, soil erosion, land desertification and deterioration of regional ecological environment will be controlled and treated. A complete and comprehensive environmental intervention to the newly developed and constructed projects should be undertaken.
- Encourage public participation in the formulation and implementation of the plan and projects. Close cooperative relationship should be established with private sectors.

2.3 Rational Vision

2.3.1 The Important Role in the Whole Country

- Shenyang is a famous historic and cultural city with a history of more than 2300 years. It is the base of heavy industry centering on machinery manufacturing, which was set up the earliest after the founding of the PRC. At present the urban comprehensive economic strength ranks fifth, next to Shanghai, Beijing, Tianjin and Guangzhou. The international authorized organization acknowledged that Shenyang is one of the cities with the greatest development potential in the world.
- Within a radius of 150 kilometers with Shenyang as the center there are eight big cities primarily based on foundational industry and processing industry, forming a cluster of industrial cities in the middle of Liaoning with abundant resources, good complementation to each other in structure, great technical association and prestige both at home and abroad. Shenyang has the largest civil airport, the largest railway hub in Northeast China and the densest network of expressways in the country. It has a state-level economic development zone and new and hi-tech industrial development zone. This enabled Shenyang to promote active cultural exchange and trade contacts with national and international relations and provide convenient service for the transport of various goods.

This strategic position makes Shenyang an ideal area for investment in North China. Just because of this, it can contribute greatly to the all-around development of the country. For the traffic map of Shenyang area, refer to Figure 2.

- Shenyang boasts of adequate infrastructure tourist and social service facilities, so each year a large number of domestic and foreign businessman and tourists come here. The urban facilities for supply of power, water, gas, shopping, medical care and entertainment are of first rate in Northeast China. Besides, there exist the famous Imperial Palace of the Qing Dynasty, the North Tomb, East Tomb, Botanical Garden, Golf Course, Star-level Hotel, Night Club and various restaurants.
- Shenyang is endowed with the proud historic and cultural heritage. People in the city are peace-loving, courageous, diligent and enterprising. They are never self-satisfied. This is a main factor that keeps the city developing ceaselessly.

2.3.2 The Important Role in the Region

- As the provincial capital of Liaoning, it is the center of political, economic and cultural services in the region.
- As a base of heavy industry, it has 184 industrial segments and 61,049 enterprises. Among the famous are Northeast Machinery Works, Shenyang No.1 Machine-Tools Plant, Shenyang Transformer Factory, Shenyang Cable Factory and Shenyang Aircraft Manufacturing Plant, etc.
- As the center of trade and commerce, it is the place where different commercial facilities are located. Taiyuan Street, Zhong Street and New North Railway Station are the there central trade zones. There are twenty commodity transaction markets radiating to the whole country and Northeast China.
- As the traffic hub, there are civil airlines leading to more than 40 major cities at home and five international airlines. “ Shenyang TaoXian International Airport is one of the first-class airports in China”. Six railway trunk lines and five expressways converge in Shenyang.
- As the post and telecommunications center, mails are carried to 200 countries and 2,000 cities and towns at home. The construction scale and level of telecommunications transmission network and computer data transmission network are of the first rate in the country. In the cities businessmen can provide various services of telecommunications facilities and Internet. All this has greatly facilitated the regional and even the across-the-country and international information transmission.
- Health center. It is the place where the chief regional hospitals are located. For example, the three large hospitals affiliated to China Medical University and other 368 specialized hospitals.
- As the educational and scientific research center, there is a strong labor force which has completed higher education and mastered professional skills. They are educated and trained in twenty-one regular universities and other higher educational institutions. It has 257 scientific research institutes with a contingent of 25,000 research workers. Besides, there is a state-level fair of scientific talents and a fair of scientific achievements.
- As the financial center, it is the location where chief financial, banking and administrative organs are stationed.

2.4 Stages of the Vision

- The city development strategic vision can be divided into three stages:
 - 2001-2005
 - 2006-2010
 - 2011-2020
- 2001—2005, The national economy will maintain sustained, rapid and healthy development. The gross domestic product, financial revenue and annual incomes of urban and rural people will rise by more than 10% on average. Great progress will be made in

strategic adjustment of economic structure. The fundamental position of new and hi-tech sector in the urban industry and that of modern service trade in the whole service trade will be remarkably increased and the layout of state-owned economy and ownership structure will be more rational. The shift of government functions will be effected, the market-oriented economy will be improved, the social security system will be more sound, the coverage of basic retirement and unemployment insurance will reach a level of 100% and that of basic medical insurance 80%. The framework of infrastructure compatible with modern regional central city will be formed initially, urban and rural eco-environment will be noticeably improved and the radiating force and overall service function of central city will be strengthened notably. Science, technology and education will maintain a sustained and rapid development, the contribution rate of sci-tech progress to economic growth will be further raised and quality oriented education will reach a higher level as a whole. The conditions of food, clothing, shelter and transportation for urban and rural people will be improved much and the level and quality of material and cultural life will be remarkably raised.

- In 2006-2010, the national economy will continue to maintain a sustained and rapid development, the gross domestic product will rise by more than 6% on average annually and annual income of urban and rural residents will rise by more than 8% on average. The strategic adjustment of economic structure will be completed in the main. Infrastructure compatible with a modern regional central city will be built. The urban and rural residents will live a fairly comfortable life both materially and culturally.
- In 2011-2020, the national economy will maintain a high-level, sustained growth, the gross domestic product will rise by more than 5% on average annually and the annual income of urban and rural residents by more than 6% on average. Shenyang will be built with a modern regional central city with strong overall power, perfect economic system, complete urban function, sound eco-environment, democracy and civilization and people living a well-off and comfortable life. The vision of a cosmopolitan city will be achieved.

3.0 Profile

3.1 Geographic Profile

3.1.1 The Development Context

- Shenyang is located in the southern part of Northeast China and the middle of Liaoning Province between the east longitudes 122°-123° and north latitudes 41°-43°. The distance from the east to the west measures 115 kilometers and that from the south to the north 205 kilometers. The total land area amounts to 12,980 square kilometers and the urban area 185 km².
- The southern part of Northeast China is the center of Liaoning Province. It is the hinterland of Liaoning Peninsula with the Changbei Mountains behind and the Bohai Sea in front. Within a radius of 150 kilometers with Shenyang as the center, stand the well-known Chinese steel capital-Anshan, coal city-Fushun, coal and iron city -Benxi, coal and electricity city-Fuxin, oil city-Panjin, textile city- Dandong, chemical fibre city-Liaoyang and grain and coal base-Tieling. These industrial cities in the middle of Liaoning with abundant resource and strong economic power constitute a cluster of cities rarely seen on earth. Shenyang is 100-400 kilometers away from port Dalian linking to big ports in the world and Yingkou New Harbor, Jinzhou Harbor and Dadong Harbor under construction.
- With the urban nucleus area as the center, it forms a central group-type layout with four surrounding sub-cities and two groups. The nucleus area is within the Third Ring Expressway, being a construction land for finance, trade, commerce, sci-tech, culture and information center. The eastern sub-city is the land for medium and high-level residential quarters, scientific research and tourism. The western sub-city is the land for the economic and technological development zone and other industries. The southern sub-city and northern sub-city is the land for comprehensive urban facilities. Daoyi Group and Wangjia Group are land for small businesses and residential quarters. The farmland is mainly distributed in various counties and districts.

3.1.2 Environmentally/ Legally Constrained areas

- Shenyang has 147,000 hectares of forestland, 82,400 hectares of grassland, 20,100 hectares of urban green land and 6400 hectares of parkland with an urban forestation coverage rate of 23.91%.
- There are 26 rivers including the Hunhe River, Liaohe River, Yaoyang River, Taizi River and South Canal, of which four are large and four medium. They are featured by great flow, high water level and large quantity of silt in the flood season and small flow in the dry season. With respect to small rivers, there is basically no water in the dry season. They belong to seasonal rivers.
- The water resources total to 3.2 billion cubic meters for each year, of which 2.4 billion belong to underground water with a water area of 13,700 hectares. The usable water resources total to 2.3 billion m³/y with 42 reservoirs and water treatment plants.
- The average recharging underground water amounts to 2.368 billion m³, of which 73 million m³ are for hilly area and 2.295 billion m³ for the plain area. The eastern part and

the northeastern part of Xinmin City (low hilly area) are water-poor areas. The inclined wavy plain area in front of the hills in the eastern part is rich in water. The middle flat-land and Liaohe River valley belongs to highly water-rich region. The western region belongs to water-rich area.

- The annual precipitation amounts to 8 billion m³, the runoff totals to 1.2 billion m³ and the usable surface water amounts to 380 million m³. Except that part of it permeates underground and evaporates from land, waters and plants, most are discharged out of the territory along the watercourse.
- Shenyang is a seriously water-deficient city with per capital water share of 303 m² only, which accounts for 1/8 of the per capita water share in the country.
- Shenyang area boasts of fertile soil and abundant resources with a cultivated area of 680,300 hectares, accounting for 1/6 of the whole province. The output of grain accounts for 1/5 of the province. Of the farmland, effective area under irrigation amounts to 267,000 hectares and the mechanically cultivated reaches 522,800 hectares. The area covered with plastic films reaches 31,000 hectares. The annual consumption of farm chemicals amounts to 166,000 tons.

3. 1. 3 Characteristics of climate, geology, topography, soil/ water

- Shenyang has a monsoon, semi-humid and continental climate of the north temperate zone. The annual temperature and rainfall distribution fall gradually from the south to the northeast and from the southeast to the northwest. Each of four seasons has its own distinct characteristics: winter is long and cold while in spring it is warm with plenty of sunshine. In summer it is hot, rainy, the duration is very short. In recent years, the average temperature trends to rise thanks to changing world weather.
- Shenyang is located at the confluence between Liaohe River Plain and eastern hilly area. The exposed area of Redrock covers less than 1000km². The remaining area is covered with the loose accumulations of the Quaternary Period. Below the loose accumulations are chiefly the strata in the Upper Tertiary Period and the Lower Tertiary Period of the Cenozoic Era and mixed granite in the Archean Era.
- Plain is the chief form of the land. The terrain is flat. The maximum height above sea level is 447.2m and the minimum 5.3m with an average of 50m. The hilly land is concentrated in the northeast and southeast parts and the western part is Liaohe River and Hunhe River alluvial plain with the terrain slowly inclining from east to west. For Shenyang topographic map, Refer to Figure3.
- 322,000 hectares of brown loam, 662,400 hectares of meadow soil, 131,100 hectares of paddy soil, 44,300 hectares of wind-sandy soil, 15,100 hectares of alkali soil, 12,900 hectares of saline soil, 12,700 hectares of bog soil and 300 hectares of slime peat soil.

3. 1. 4 Urban Administrative boundary

- As the capital of Liaoning Province, China, Shenyang has nine urban districts including Heping, Shenhe, Dadong, Huanggu, Tiexi, Sujiatun, Dongling, Xinchengzi and Yuhong, and four counties (city) including Xinmin City, Liaozhong County, Kangping County and

Faku County.

- The districts and counties (city) have 112 Sub-district offices, 74 townships and 67 town governments. Refer to Figure 4-Shenyang Administrative Division Map.

3.2 Environmental profile

3. 2. 1 Air, Land, Water Quality and Treatment

- In Shenyang the environmental air quality in 1996 was related as heavy pollution and in 2000 minor pollution. In terms of urban environmental air pollution indicators, the averages of total suspended particles, sulphur dioxide and nitrogen dioxide were 0.265, 0.062 and 0.046 mg/m³ respectively, which met the state standard, class 3, for the first time.
- There are 50,000 hectares of wasteland, of which 11,300 hectares have now been under control by building shelter belts to prevent soil erosion, level terraced field and fruit terraced field. Four nature preservation areas have been set up with a coverage rate of 8.1%, of which the Sleeping Dragon Lake Nature Preservation Area has passed the evaluation of provincial nature preservation area.
- The discharge of pollutants from 1350 industrial enterprises in Shenyang has attained the standard fully. The discharging volume of chief pollutants has been reduced greatly and the water coming out of Liaohe River trunk stream is cleaner than that going into it.

3. 2. 2. Drainage and Waste Water

- The drainage volume is not very even and greater in the flood season. All the streams in the territory flow into the Bohai Sea through Hunhe River.
- The annual discharge volume of wastewater totals 394.83 million tons, of which 83.12 million tons belong to industrial waste water. Now the daily wastewater treatment capacity reaches 500,000 tons and 71.22% of industrial and 39.55% of domestic wastewater have been treated.

3. 2. 3. Solid Waste

- The industrial solid waste in Shenyang reaches a volume of 3.13 million tons with: Dust and smoke discharge capacity of capacity of 51,700 tons and a wastewater capacity of 83 million tons.
- The daily domestic rubbish reaches a volume of 2240 tons and the stool 350tons.

3. 2. 4 Forest Protection and Parks

- Shenyang boasts of a forest area of 147,013 hectares with 6,670 hectares quick-growing high-yield forests and 13,976 hectares orchards.
- Afforestation area amounts to 20,100 hectares with 643 parks.

3. 2. 5 Animals and Preservation Zone

- Originally in Shenyang twenty and more kinds of wild animals were kept. As the city has developed and human activities expanded, most of them are seldom seen now except

some small birds.

- Four nature preservation zones have been set up with a coverage rate of 8.1%. The Sleeping Dragon Lake Nature Preservation Zone belongs to Provincial level and the three Nature Preservation Zone, namely, Dongling, Qipanshan and Sujiatun belong to municipal level.

3. 3 City Infrastructure Facilities

3. 3. 1 Land Utilization Facilities

- In the territory of Shenyang 236 km of expressways were built with a total highway mileage of 5,234 km. The density of highway network reaches 40.8 km for each 100km². Five railway trunk lines join at Shenyang, which is one of China's main railway hubs.
- 188 bridges, 4 large bridges, 47 overpasses, 2 civil airports, including one international.

3. 3. 2 Traffic and Transportation System

- As the largest economic central city in Northeast China and the only way to the area to the south of the Great Wall, Shenyang has a very dense traffic network of airlines, railways and highways. "Shenyang TaoXian International Airport" is one of China's first-class airports, which has 43 trunk line aircraft, 10 branch line aircraft and 14 airline networks. The domestic airlines lead to 40 major cities such as Beijing, Shanghai, Guangzhou, Chengdu, Wuhan, Xian, Shenzhen, Urumqi, Kunming and Harbin. The international airlines lead to HongKong, Seoul, Osaka, Irkutsk, Vladivostor and Bangkok, ect. The annual freight volume amounts to 23,100 tons with a passenger capacity of 1.132 million.
- As the largest railway hub in Northeast China, such trunk railways as Shenyang; Shanhaiguan Railway, Shenyang; Jilin, Changchun; Dalian, and Shenyang; Dandong Converge in Shenyang. The annual freight volume amounts to 4.99 million tons with a passenger capacity of 3,018 million. The highways extend to all directions. The expressways from Shenyang to Beijing, Dalian, Dandong, Fushun and Changchun have been open to traffic, forming an expressway network with the greatest density in China. There are 360,000 mobile vehicles altogether with one highway transportation center and eleven passenger and freight depots and stations of Class I. The annual freight volume totals 146,52 million tons with a passenger capacity of 36.68 million.

3. 3. 3 Water Supply and Drainage System

- The running water supply totals 592.83 million tons annually with 37 water source places and 38 water source wells.
- There are 2,116 kilometers of sewers, 1,955 kilometers of escape canals, 76 kilometers of open canals, 44,649 inspection wells, 56,275 rain wells and 50 pump stations.

3. 3. 4 Gas Supply System

- Shenyang has an annual gas sales volume of 219.60 million cubic meters, of which 174.27 million are for civil use. The liquefied gas sales volume amounts to 2.64514 billion tons.

- The fuel gas supply adopts two modes: self-production and external supply. The city has three coke ovens and two generators with a daily supply capacity of 310,000 cubic meters for self-produced gas. The average daily supply reaches 707,000 square meters. It also has four gas tanks with a storage capacity of 354,000 cubic meters.

3. 3. 5 Power Supply System

- Shenyang power network transmits electrical energy from Northeast main power frame to every family continuously through two primary substations of 220 KV and 500 KV and then through 186 secondary substations of 66 KV.
- The directly measured power consumers amount to 1.372 million households with a power supply of 10.58 billion kW/h. The maximum power reaches 1.92 million KW. The installed capacity for power plants (station) affiliated to Shenyang totals 144,000 KW with a yield of 600 million KW/h.

3. 3. 6 Post and Telecommunications

- Shenyang has a postal history of 100 years and now has become one of the six national central bureaus. It is the hub of post and telecommunications in Northeast China with a postal service network of 70000 kilometers for one way. The mails can be delivered to 200 countries in the world and 2000 cities and towns at home. The postal comprehensive service computer network has been completed and put into operation. There are 398 post offices and sub offices with an annual delivery of 109.49 million newspapers and magazines, 65.81 million correspondences and 1.18 million Express Special Mails.
- Telecommunications transmission network and computer transmission network construction are of the first class both in scale and level. The number of telephone lines reaches 2 million. The total length of international and domestic long-distance phone lines amounts to 100,000 with 1.65 million permanent subscribers. The urban phone popularity rate is 35% with 220,000 Internet users and more than 30 large-type computer network systems.

3. 3. 7 Waste Regeneration System

- In Shenyang four permanent rubbish treatment works are established with a plot area of one and half million square meters. There are two large sewage treatment plants with a daily capacity of a half million tons.
- Industrial solid waste utilization of 2.31 million tons, storage of 0.52 million tons, disposed of 0.072 million tons and wastewater disposal of 59 million tons. Daily domestic rubbish disposed of 1950 tons and daily stool disposed of 230 tons with a harmless disposal rate of 87% for domestic rubbish in the city and that of 66% for stool.

3. 4 Demographic Profile

3. 4. 1 Demographic Data

- Shenyang has a total population of 6.85 million people with a growth rate of 1.6% Males account for 51% and females for 49%. The age group of 0-14 accounts for 15.2%, that of 15-64 for 76.2% and that of 65 and over for 8.6%. There are 2.18 million family household with a labor force of 3.782 million employees including 66,000 working abroad.

Refer to Figure 5—Statistical Data Sheet of Population & Labor Force in Shenyang.

- People who have finished university education account for 11% senior and junior secondary education for 58%, primary education for 27.3% and illiterates for 3.7%. There are 240,000 disabled persons, 100,000 of whom have been employed. There are five religions including Buddhism, Taoism, Islamism, Christianity and Catholicism and seven religions bodies with 260,000 believers.
- People moving in the daytime amount to 6 million and at night 200,000.

3. 4. 2 Urbanization Speed and Land For Urban Use

- From the population growth point of view, the urbanization speed of Shenyang is not fast. In 1990 the urban population amounted to 4.54 million and in 2000 4.85 million with an annual growth rate of 6.63% on average.
- In 1990, the land area for urban use reached 15,039 hectares and in 2000, 18,938 hectares with an annual growth rate of 2.33% on average. Illegal land for use amounts to about 150 hectares.

Refer to Figure 6 Map for land use in Shenyang

3. 5 Social Profile

3. 5. 1 Housing, Family, Education and Health.

- In Shenyang there are 2.18 million family households with per capita living space of 8.37m². There are 1.23 million students in enrollment in various regular schools. Every thousand people have 5.3 beds in hospitals and 3.03 doctors on average.

Refer to table 1—Statistical Data Sheet for Housing, Family, Education and Health in Shenyang.

- There are all together 1636 architectural enterprises, of which house building ones number 565, decoration number 441, installation and other specialty number 78. The first –class enterprises number 44, second-class 189, third-class 523 and fourth –class 246. They have an annual construction capacity of 30 million m² and more with a working staff of 480,000 employees.

3. 5. 2 Distribution of Housing, Family, Education, Health & Government Organizations

Refer to Figure 7 Distribution Chart of Housing, Family, Education, Health & Government Organizations.

3. 6 Economic Profile

3. 6. 1 Activities of the Primary, Secondary and Tertiary Industries.

- In the last twenty years thanks to the vigorous implementation of the policy of reform and opening wider to the outside, Shenyang has scored remarkable achievements. Its economy is developing sustainable, rapidly and soundly, and the urban integrated strength is noticeably raised.

- The city's product mix has achieved a historic shift from "Industry –Service- Agriculture" to "Service-Industry-Agriculture". Now the fortune made in one single day in Shenyang is equal in value to the sum made in a year just after the founding of the PRC.

Refer to Table2—Statistical Data Sheet for Gross Domestic Product.

Refer to Table3—Statistical Data Sheet for Employment of Laborers.

3. 6. 2 Manufacturing Business, Commerce and Building Industry

- Shenyang was a manufacture base constructed as a key project by the state during the period of the First five-year Plan. After the 50 years' development, the industrial segments were increased to 184 with a high integrated support capacity and technical level. Great changes have taken place in conventional manufacturing sector after complete upgrading. It boasts of a strong power and occupies a pivotal position in the country. A cluster of industries primarily based on automobile, machinery, electronic information, chemical engineering, environmental protection and pharmacy have been preliminarily set up. In 2000 the added-value for the manufacture industry amounted to 44.1 billion yuan.
- Shenyang is the commodity transaction center in Northeast China. Taiyuan Street, Zhong Street and New North Railway Station belong to three central trade zones. There are 455 commodity markets, 20 of which radiate to the country and Northeast China in business scope. In 2000, the commodity sales volume amounted to 161.2 billion yuan with a commercial added value of 19.4 billion yuan. 133 countries and region maintain business relations with Shenyang, which chiefly cover Japan, South Korea, U.S.A., Germany, Italy, the Netherlands, Sweden and Hong Kong. In 2000 the imports valued U.S. \$ 1.39 billion and exports 1.3 billion. Now the foreign trade presents a trend towards diversification. The port trade volumes to North America, Africa and Oceania rise by 10.0%, 28.7% and 23.5% respectively.
- The new overall plan for urban construction has been approved by the Central Government. Systematic legal guarantee and procedures are provided in terms of urban planning, building market, engineering quality, construction site, real estates development, property management in residential quarters, swap guaranty and housing action. In 2000, the building industry had an added value of 5.4 billion yuan with housing construction area of 20.46 million m² and a completed floor space of 11.96 million m².

3. 6. 3 Tourist & Recreational Facilities

- Tourism is becoming a new rising industry. By bringing the advantage of the central city—Shenyang into full play and utilizing good traffic conditions and nearby resources, a tourist resources network radiating to Fushun, Anshan, Dandong, Benxi, Jinzhou and Huludao and other cities has been formed. In 2000, foreign tourists numbered 160,000 and domestic visitors 16 million with a foreign tourist income of U.S. \$ 100 million and domestic tourist income of 6.7 billion yuan.
- Zhong Street and Taiyuan Street are two large shopping areas with brandname products and local specialties from home and abroad. The famous shopping centers are the Commercial City, ZhongXing Commercial Building, Affiliated Company, East Asia Commercial

Plaza, etc. There are 1200 golf courses, star-level hotels, nightclubs, discotheques, leisure centers and restaurants, including 47 star-level hotels. Macdonald and Kentucky have many chain shops in Shenyang. The golf courses and star-level hotels are mostly invested and operated by foreign businessmen.

3. 6. 4 Mines, Forestry and Farming

- Shenyang has rich deposits of coal, petroleum, natural gas, iron, limestone, marble and sandstone, etc. In 2000, the total output value of the mining industry amounted to 1.1 billion yuan.
- Commercial lumbering has a small scale. The area of commercial forest covers only 6670 hectares. With a total output value of less than 20 million yuan in 2000.
- The cultivated farmland area covers 680,000 hectares in Shenyang, accounting for 1/6 of the province. The grain output accounts for 1/5 of the province. The effective farmland under irrigation covers 270,000 hectares. With a mechanically cultivated area of 520,000 hectares. In 2000 the agricultural added value amounted to 7.1 billion yuan with a total grain output of 2.34 million tons. The output of vegetables, meat, eggs and aquatic products rose by 2.5%, 6.4%, 8.9% and 10.5% respectively, whose per capita share ranks in front among the chief large and medium cities in the country.

3.7 Financial Profile

3. 7. 1 Financial Revenue and Expenditure

- In 2000 Shenyang municipal financial revenue amounted to 6.1 billion yuan, which chiefly came from value-added tax, business tax, individual income tax, urban construction maintenance charge and housing tax.
- The financial expenditure amounted to 9.2 billion, including such items as social security charge, educational fee, sci-tech fee, farming and water conservancy fee, urban facilities maintenance fee, administrative fee, judicial and fire control fee, urban construction fee, etc.

Refer to Table 4— Statistical Data Sheet of Financial Revenue & Expenditure

3. 7. 2 Urban Gross National Product and Investment

- From 1996 to 2000 urban GNP maintained a faster growth with an annual rate of 10.33% on average.
- The growth rate of urban fixed assets investment exceeded that of GNP with an annual rate of 13.88% on average.

Refer to Table 5—Statistical Data Sheet of per capital GNP& Residents' Income.

Refer to Table 6—Statistical Data Sheet of Urban Fixed Assets Investment.

3. 8 City Government Profile

3. 8. 1 Formation of Chief Government Bodies

- Shenyang Municipal People's Government has one political affairs body (A), two compre-

hensive economic managerial bodies (B) and two legal and supervision bodies (C) and some administrative and technical service bodies (D.E). In light of power, obligation and function authorized by the Municipal People's Congress, the Mayor can exercise his powers to control and supervise all matters relevant to the city.

- With the shift of economic management from microcosmic, direct control to intensive, indirect macro-control, the comprehensive economic management department further stepped up the pace of function shift form laying special emphasis on microcosmic economic activities to forward planning and operational research.

Refer to Figure 8 Organization of the Municipal Government.

3. 8. 2 Basic Duties of Chief Government Bodies

- Office of Shenyang Municipal People's Government is the administrative body directly under the Government in charge of the government affairs of organizing, directing and coordinating the government system.
- Shenyang Municipal Planning Committee—shall study and develop the strategic goal and major line and policy for the national economic and social development of the city. It shall also undertake to formulate and carry out the program and annual plan for the city's national economic and social development.
- Shenyang Municipal Economic and Trade Committee undertakes to analyze and supervise the economic operation and coordinate in solving major problems. It shall be responsible for formulating and carrying out the programs and annual plans for technical upgrading, technical introduction, new product development and new technique extension in industrial transportation and commercial enterprises.
- Shenyang Municipal Urban and Rural Construction Committee—undertakes to formulate and implement urban and rural construction plan, organize and carry out the urban infrastructure projects and key regional development, preliminary preparation of major construction projects and urban management and maintenance. It shall also organize, coordinate, inspect and direct departments in charge of planning, land, urban construction, building engineering, real estates, traffic, public utilities, environmental protection, civil air defense, railway, civil aviation, power supply, post and telecommunications.
- Shenyang Municipal Science and Technology Committee undertakes to administer sci-tech research projects, sci-tech product evaluation, achievements extension, development and construction of sci-tech expenses, sci-tech circulation fund, sci-tech development risk foundation and foreign sci-tech cooperation and exchange.
- Shenyang Municipal Foreign Economics & Trade Committee is responsible for the formulation and implementation of the annual plans for the city's foreign trade, foreign investment and foreign economy. It undertakes to administer import-export commodity licenses, quota management of imports and exports, foreign loans, international lease, export labor service and cooperation, international engineering project contracting economic assistance, offshore investment, establishment of trade representative office by foreigners, contracts and articles of association for foreign –invested enterprises and export tax rebate.

- Shenyang Municipal Education Committee undertakes to formulate and carry out medium and long-range programs for educational development and annual plans. It also undertakes to administer educational work at different categories and levels and foreign educational exchange.
- Shenyang Municipal Office of Legal Affairs chiefly takes charge of the formulation and approval administrative rules and regulations and supervises the execution of laws, rules and regulations, and pushes forward the administration and rule of the city by law.
- Shenyang Municipal Financial Bureau undertakes to formulate and implement financial and taxation plans, work out annual government's budget draft and carry out the annual financial budget approved by the Municipal People's Congress. It takes charge of the execution of budget, international negotiation on foreign-related finance and taxation and maps out agreement draft, government's internal and external debts, sale and distribution of government bonds, securities-industry and securities market.
- Shenyang Municipal Civil Affairs Bureau takes undertakes to administer social relief, social welfare, special care for disabled servicemen and families of revolutionary martyrs, marriage registration, funeral, social bodies, onerous donation of social welfare and social endowment insurance in rural areas.
- Shenyang Municipal Environmental Protection Bureau undertakes to implement the national and local laws, rules, regulations and standards on environmental protection program and plan.

4. 0 Issues and Opportunities

4. 1 City's Advantages

4. 1. 1 Human and Sci-Tech Resources

- Shenyang city has an abundant human resource. The social laborers account for 55% of the population, people actively engaged in business account for 78% of the population, People who have completed higher education account for 16% and the educated people rate reaches 96%. The proportion of low-age people in need of upbringing accounts for 15.2%, a decrease of 6.54 percentage points compared to the year 1990. The workers are diligent and the people are generous and hospitable.
- A strong technical force comprising 268 scientific research institutes and 25,000 full-time technicians and engineering. Here stand the Metal Research Institute of the Chinese Academy of Sciences, Automation Research Institute, Computation Research Institute, Corrosion Research Institute and Ecological Research Institute. There are 10 state-level, 24 provincial-level and 14 municipal level research centers and engineering technical centers.

4. 1. 2 Natural Resources

- Shenyang boasts of excellent urban infrastructure, such as the top-class and the densest railway and expressway networks, international airports, advanced post and telecommunication facilities and ample energy supply.
- The overall urban plan approved by the state council recently ensures that a lot of land can

be transferred and utilized.

4. 1. 3 Tourist Resources

- The integration of hills, plains and waters in Shenyang with its history and culture constitutes colorful tourist resources. There are 200 plus human landscape, national landscape and social tourist attractions, such as Shenyang Imperial Palace, Fu Tomb, Zhao Tomb, Xinle Relics, Nanguan Catholic Church, Islam Mosque, Qipanshan Scenic Spot, Forest Park (state-level), Sleeping Dragon Lake Scenic Spot, etc.
- Sufficient hotels, star-level hotels, night clubs, discotheques, leisure centers, golf course and various restaurants which can meet tourists' needs.

4. 1. 4 Social Order and Security

- All the criminal activities in Shenyang are severely punished. The urban districts are in peace and order and rural areas in tranquillity and harmony.
- In each district and country are set up Public Safety Branch, Traffic Police Detachment and Fire Control Brigade. Moreover, there is an Armed Police Troop.

4. 1. 5 Financial Resources

- Shenyang boasts of 4 wholly state- funded commercial banks, 1 non-commercial bank, 6 share-holding commercial banks, 5 securities companies and 5 representative offices from financial institutions abroad. In 2000, the balance of deposits amounted to 170 billion yuan, and that of loans 139.2 billion yuan.
- Local financial revenue is rising continuously.

4. 1. 6 Development Management

- Shenyang Municipal Government is stepping up the reform in economic system, setting up rules and regulations and rules of procedure in line with international practices and expanding the field and scope of opening-up according to the requirement of WTO with a view to establishing an all-around market economy.
- Shenyang has a group of well-organized non-government bodies, rapidly developing private sectors, influential businesses and other organizations.

4. 1. 7 Economy and Society

- Regional political, cultural and service centers.
- Regional trades, traffic, postal and telecommunications, health, education and scientific research centers. Also State-level sci-tech talents fair and sci-tech achievements fair.

4. 2 City Problems (Weaknesses)

4. 2. 1 Human Resources

- Low income of urban and rural residents, insufficient employment opportunity, great pressure of endowment and weak social security.

- Inadequate enterprising spirit of residents.

4. 2. 2 Natural Resources

- Urban and rural infrastructure construction and management not up to modern standard. Serious urban environmental pollution, poor living conditions, urban traffic jam, insufficient water source and gas supply, irrational utilization of land resources.
- Irrational distribution of productivity with great congestion of industrial enterprises in the central urban district. Great deficiency of funds for implementation of upgrading old industrial area and restructuring product mix.

4. 2. 3 Economy

- The development of market economy is not so perfect, the transformation of SOE managerial system and operating mechanism has not been completed yet, the development of economy under non-public ownership lags behind and the aggregate economic dynamic is insufficient.
- The proportion of traditional agriculture is relatively great, the advantage of manufacturing industry is not prominent and the new rising service trade develops slowly. The excessive distribution and concentration of state-owned capitals in all trades and competitive fields greatly restrict the adjustment of product mix, enterprise organizational structure and whole industrial complexes.
- New economic growth points develop slowly, there is no major highly competitive industrial project and a long-term, sustained development capability is inadequate.

4. 2. 4 Services and Facilities

- Some simply constructed houses still exist, educational and medical expenses rise and there are no sufficient cultural, sports and body-building facilities for the public.
- Service facilities in rural areas are poor in quality and insufficient in quantity.

4. 3 Important Opportunities Confronted

- In the new century, worldwide structural readjustment and industrial upgrading will be quickened and the trend towards economic globalization and regional integration will be more remarkable. Especially after China's accession to WTO and blending with world economy, Shenyang may make more choices while facing greater challenges. Shenyang will have a bigger space, more opportunities and more flexible ways to participate in the development of world economy.
- Shenyang should make the best use of the occasion when the developed countries conduct industrial relocation and technical export and international capital intensifies its flow into our country. By relying upon its better industrial and sci-tech foundation, Shenyang should rapidly blend the new and hi-tech into traditional manufacturing and new rising industry and achieve the development by leaps and bounds in fields of automobile, large machinery, electronics and pharmacy, which is a main channel for restructuring in economy and development in industry.

- With the advent of knowledge-base economy and changing scientific progress, the development of various trade will increasingly depend upon sci-tech and talents to great extent, which will offer good opportunities to bring Shenyang's advantages in sci-tech and talents into full play.
- The further reform in economic system and incessant adjustment and perfection of laws, rules, regulations and policy systems will stimulate Shenyang's economic development by far.
- The overall adjustment of national economic structure, development of the West Regions and acceleration of transformation of old industrial bases will offer major opportunities and possibilities for the invigoration of manufacturing industry in Shenyang.
- The development of regional economy towards integration and collectivization is conducive to bringing the overall effects of city cluster in the middle of Liaoning into full play and more conducive to Shenyang playing the role of a central city in terms of traffic, trade, finance, information and service.

4. 4 Challenges Confronted

- All the economic policies formulated under planned economy, including investment policy, credit policy and social security policy fail to fulfill and adapt to the needs of market economy development while new policies in conformity with the operation of market economy haven't been drawn up completely.
- The SOE reform hasn't been fully carried out, modern corporate system not established completely, some corporate legal person structures haven't been perfected and the internal managerial system is not standardized and complete enough.
- The shift of government functions and government restructuring campaign haven't been carried out completely. A bloated size with overlapping functions and serious overstaffing has restricted the work efficiency of the government.
- The construction of urban infrastructure is slow with low level of modernization and serious environmental pollution.
- Irrational economic structure and the role of a central city not played fully, reduced the function and efficiency of the city.
- Insufficient opportunity of employment and weak capability of social security.
- The ability of agriculture to fight natural calamities is weak.
- Competition from home and abroad.

4. 5 Schedule of Main Problems and Chances

Refer to Table 7 Main Problems and Chances

5.0 Strategy Formulation

In five years to come, national economy will maintain a sustained and steady growth with an annual

rate of 10% for gross domestic product. On the basis of technical innovation, restructuring in economy will score great achievements and the proportions of new and hi-tech sector and modern service trades will be raised continuously.

5.1 Basic Plans in Each Field

5. 1. 1 Agriculture

- Primarily based on the quality rice produced in Xinchengzi District, Sujiatun District and Liaozhong County, a system integrating production, processing, packing, storage, transport and sale will be established. The level and scale for grain in depth processing will be raised so as to promote the development of chief corn production areas of Kangping County and Faku County and direct the restructuring of grain production.
- Maintain an annual grain production of more than 3 million tons with an planting area of more than 5 million mu. With the Research Institute of Agricultural Science as the core, conduct selective breeding, reproduction, extension and industrialization of superior variety by integration of introduction of foreign technique with self-development, and establish twenty agricultural quality products park areas.
- Introduce and breed superior varieties and develop production base of seedlings. Build Xinmin and Liaozhong into two specialized counties for harmless vegetable production.
- Improve the equipment and technology level of large and medium pig raising farms in main live pig production areas in Liaozhong County, Kangping County, Faku County and Xinmin City. Enlarge the scale of cattle and sheep raising bases and broiler, duck and goose farms in Xinmin City, Liaozhong County, Faku County and Kangping County, go on improving breeds and better feeding conditions.
- Continue to enlarge the scale of milk cow production base, construct modern dairy products enterprise and raise the processing level of dairy products. Establish milk quality inspection system, perfect sales service system and raise the notability of Shenyang milk products.
- Land on the slopes with a degree of 30 should be all returned to forest. Step up the construction of quick –growing, high-yield forest, enlarge production scale and improve ecological environment.
- Primarily based on the eastern hilly area and Hunhe River riparian area, introduce and breed superior varieties, built an economic belt of apple-pear, strawberry and grape, forming a specialized production base. Develop fruit in-depth processing and storage industry with priority given on red wine and juice processing enterprises.
- Introduce and popularize new varieties of flowers and plants with emphasis laid on foundation work of breeding and trial planting. Establish production base of flowers and plants, wholesale market and sales network.
- Effective irrigated area amounts to more than 5%. Introduce and utilize superior breeds both at home and abroad, bio-tech, and transgenic tech, enable science and technology to play a greater role, reduce production cost and have a coverage rate of more than 95% for superior varieties within five years.

- Establish food safety standard system with a safety rate of 100% for the use of chemical fertilizers and farm insecticides.

5. 1. 2 Manufacturing Industry

- Automobile
 - Around the main engine and key parts, concentrate all available assets and speed up the pace of cooperation and joint venture with big corporations world wide.
 - Center on the development of light passenger cars, off-road vehicles, vans, light lorry, bus and farm vehicles with reliable performance and complete functions, so as to form a modern automotive industrial system with multi-series, multi-variety and distinct features which adapts to the need of the market. Promote a batch of joint venture and cooperation projects with universally well-known corporations for China Brand car, off road vehicles, vans, Hino bus, off-road jeep and Sea Lion passenger bus, and quicken its batch production as soon as possible.
- Mechanical Equipment
 - General machinery. By use of advanced manufacturing technique, realize the intelligent equipment products and manufacturing, improve the technical level of equipment production and localization of key equipment in an all-around way. Center on the development of numerically controlled machine tools, hyperpressure transmission and transformation equipment, mine excavation machinery, port transportation devices, large power station accessory motors and other complete equipment.
 - Environmental protection equipment. Relying upon the major environmental control project cultivate and establish a complete industrial system for construction of environmental item and product complete development, design, production, sale, installation and service. Center on the development of complete technique, technology and equipment for treatment of urban sewage, rubbish, foul, industrial ash, residue and heavy pollution discards and monitoring of gas source, water source and atmosphere. Speed up the development of the project of auto tail gas treatment system and incinerators for dangerous discards.
 - Modern new gas fired power machinery. Bring the advantages of Shenyang aviation industry in development, design and manufacturing into full play. Develop modern, new type power machinery with their independently owned intellectual property rights, high efficiency, good reliability, cleanness and high technology. Center on the development of light and heavy type compressor-turbine unit used in gas pipeline, heat-power supply, ship power, national defense, and military industry. Accelerate the development and production of gas-engine unit for gas pipeline pressurizing station.
 - Nuclear equipment starting with the development of cryogenic nuclear heat equipment, aim at key technique, equipment, project construction and a series of key links, form specialized production capacity for cryogenic nuclear heat equipment and construct national industrialization base of nuclear energy complete equipment. Stress should be laid on the applied techniques, complete equipment and project construction for the comprehensive utilization of cryogenic nuclear heat supply, sea water desalination and

heat-power supply. Speed up the development and production of cryogenic nuclear heat supply special nuclear pump unit and other auxiliary complete equipment.

- ☐ Track traffic equipment. Regroup enterprises capable of developing and producing track traffic equipment to form a new specialization industrial advantage and unique track traffic equipment manufacturing industry. Center on the development of light track vehicles and their related automatic controlling system and fire control alarm system.
- ☐ Electronic Information
 - ☐ Follow up the development of international information industry and expand the production of integrated circuit, new elements computers and their peripheral products, digital video-audio products, telecommunications and network products.
 - ☐ Expand the production of Sanbao computer and beita display. Emphasis should be put on the application system and software required in the fields of e-commerce, electronic public affairs and network service that are responsive to the information level of natural economy and able to provide reliable support.
- ☐ Chemical Engineering / Medicine
 - ☐ Restructure the product mix of chlorine and soda, develop petrochemical in-depth products and fine chemicals produced with advanced technology and actively develop in-depth processing products which use pipeline petroleum natural gas as raw materials.
 - ☐ Quicken the construction of chemical raw materials medicine base and restructuring of product mix, raise and expand the production level and scale of vitamin series products, develop new vitamin C product and speed up the development of chemical raw materials medicine and bio-pharmacy. Center on the development of vitamin C one-step fermentation, cell cultivation, genetic engineering medicine and vaccines, new-type enzyme preparations, protein engineering, bio-chemical engineering, quality anti-serum transgenic animal and plant, and tumor capillary blockage technique. Speed up the industrialization of the projects for red cell forming element and genetic engineering interferon. Establish the industrialized bases of foodstuff bio-tech and genetic engineering microorganism farm insecticides.
- ☐ Miscellaneous
 - ☐ Adjustment of manufacturing layout in urban central district.
 - ☐ Transformation of Tiexi Industrial Area.
 - ☐ Construction of Shenyang Economical & Technological Development Zone.
 - ☐ Construction of Shenyang New & High Economical and Technological Development Zone.
 - ☐ Satellite towns and industrial development in small towns and villages.

5. 1. 3 Service Industry

- ☐ Shopping Area/ Trade Center

- Continuously perfect the infrastructure in large shopping areas including Taiyuan Street, Zhong Steet, North Railway Station, Beihang and Sanhao Street.
- Introduce advanced technique and managerial experience and speed up the standardization, scale operation and chain operation of specialty food and Chinese fast food. Center on the development of new rising service modes of chainshop, distribution, agency, supermarket and E-commerce.
- Go on with expanding the scale, functions and radiating scope of various markets of durable consumer goods, means of production, farm by-products and real estates.
- Accelerate the construction of Hunnan Trade and Commerce Area, Computer Software City and Automobile Fair.
- Medical Care / Hygiene
 - Continue to raise and increase the equipment level and doctor number of chief hospitals and health service agencies and expand the range of prevention and health care.
 - Establish a new system of health supervision enforcement, preventive health care and medical service.
- Culture and Physical Training
 - Stress is laid on carrying forward our national culture and establish cultural undertaking comprising recreation, artistic creation, performance of plays or operas, talents cultivation, performance operation, film and audio-video products, historic museum and tourism, and information service. Pay attention to the development of social science research, press and publication, broadcasting and TV and book fair. Introduce five foreign literary and artistic works and develop healthy network culture.
 - With stress laid on community sports, continue to increase sites and facilities for mass physical exercises, promote the development of sports industry and set up a batch of stock-holding enterprise groups with good economic efficiency and certain scale, which implement modern enterprise system and comprehensive opening. All the public stadiums and gymnasiums shall be open to the public. Construct such projects as world National Sports Fair Park, Hunhe Over-water Sports Development Belt, Qipan Mountain Sports & Tourist Recreational Zone, Wulihe Sports Activities Zone and Shenyang Sports Articles Trade Street.
- Information Service
 - Speed up the construction of “Shenyang Information Harbour” to form a modern information service network linking national to international relations, government to sectors and market to enterprises. Construct an information network of government affairs and effect the informationization of government administration. Further perfect the information network construction of such sectors as finance, taxation, sci-tech, education, trade and commerce, medical care, insurance, urban construction and information service. Promote the development of network E-commerce. Construct a group of large, public database. Through intensification of regional and international cooperation, construct a group of in-

formationization service enterprises including software development, network service and system integration to form a major, domestic software development base with good foundation, high technology and complete system.

- ☐ Develop notary supervision office and consultancy service agencies for accounting, law, auditing, notary, arbitration, assets appraisal, project supervision, project consultancy, planning and tending. Develop various brokerage houses, including real estate broker, employment agency, technical broker, securities, futures broker, auction and pawn-broker.
- ☐ Finance
 - ☐ Vigorously develop markets of securities, currency, insurance, financial lease, property right transactions, construct and perfect the financial market radiating to Northeast China, which will become a capital collection and dispersion center, an investment financing center and a financial trade center.
 - ☐ Step up the pace of finance opening-up and attract national and international financial institutions to set up branches or joint-venture financial agencies in Shenyang, speed up the construction of Shenyang Finance, Trade and Commerce Development Zone.
- ☐ Science and Technology
 - ☐ Speed up the integration of bio-tech and IT with traditional farm technique and set up twenty agricultural sci-tech demonstration parks, enterprises and industrial bases.
 - ☐ In the technical fields of information, automation, biology, pharmacy, new material, energy conservation and environmental protection, efforts should be made to the construction of key industrialization demonstration projects including recombination human red-all forming element and robot automation assembly line. Construct and perfect the two state-level knowledge innovation bases, twenty engineering research and technical centers, twenty key labs, fifteen enterprise technical centers and ten university science parks, to turn Shenyang into an important state base of scientific research and technological innovation.
 - ☐ By using the state-of -the-art IT and advanced manufacturing technique at home and abroad, remold the manufacturing industry, enable the backbone enterprises to master key production technique, assimilate and absorb advanced would techniques and develop a group of brand-name products. Vigorously support sci-tech type enterprise with an annual output value exceeding 100 million yuan.
- ☐ Education
 - ☐ Strenuously develop education, raise the educational level of the whole people, consolidate and improve nine-year obligatory education, speed up the industrialization of non-obligatory education to construct a modern educational system needed in the new century.
 - ☐ The proportion of the expenditure of educational expenses in the financial expenditure of the whole city will rise by one per centage point each year. Optimize the educational resource of regrouped primary schools, especially those in rural areas and improve the educational quality in school during the peak period. Expand the scale of ordinary senior

middle schools. Key ordinary senior middle school should operate in the modes of association and “tie up” and develop toward industrialization. Focus on the operation of thirty secondary vocational schools that are more responsive to the social needs with a certain scale and better conditions, encourage and support school of multiple ownership.

- ☐ Carry out pre-school education, vocational education, adult education and senior citizen education. Speed up the implementation “Shenyang Hunnan University City” plan.
- ☐ Tourism
 - ☐ Perfect famous tourist attractions, such as Shenyang Imperial Palace, Fu Tomb, Zhao Tomb and Marshal Zhang’s Mansion.
 - ☐ Continue to develop Qipanshan Mountain, Strange Slope, Aerolite Mountain and Shenyang West Lake, which will be built into a state-level and provincial-level tourist leisure zone. Construct some industrial and sci-tech tourist parks including Aviation Museum, NEU Soft-ware Park and Robot Center. Construct Kangping Sleeping Dragon Lake Bathing Place and develop tourist resources on the desert and grassland. Develop other landscape tour, industrial tour, business tour, cultural and historic tour, agriculture tour and sci-tech tour. Launch eight charter airlines for international tour.

5. 1. 4 Urban infrastructure

- ☐ Traffic
 - ☐ Further strength the strategic position of Shenyang as traffic hub in Northeast China, perfect its traffic functions and form an intelligent transportation, management and service system that is compatible with the regional economy and social development.
 - ☐ Priority must be given to the development of public passenger transportation, construct light rail traffic “Zhang Li” line and express urban main highway, increase and renew passenger buses, and develop private cars. Perfect inter-city expressway network.
 - ☐ Transform existing railway system and form a through railway transportation system linking to various cities in the middle of Liaoning province. Fulfill the task of constructing Qinhuangdao—Shenyang Special Railway passenger line and electrifying Harbin- Dalian Railway to form a high-speed railway thoroughfare.
 - ☐ Expand Taoxian International Airport, increase the capacity of passenger and cargo transportation, launch new sub-line flight and add air lines to major cities in the world.
- ☐ Water Source
 - ☐ Launch the project of Suxi Water Source and increase the daily water supply by 400,000 m³. In the years, the urban daily water supply will reach 2.1 million m³. Develop the feasibility study of the project of “Drawing Water from East to West”.
 - ☐ Speed up the upgrading of water transportation and distribution facilities, reduce the leakage of water pipe network and improve water quality. The overall water quality yield reach 100% and direct drinking will be realized step by step. Extend the use of water-saving appliances and equipment by force.

- Energy Source / Heat Supply
 - Remold urban and rural grid and continue to increase and improve the power supply capacity and quality. In five years complete the projects of Shenyang Power Plant (Stage III), Jinshan Thermal Power Plant and Shenyang Thermal Power Plant (Stage III) with a total installed capacity of 800,000 KW including the power supply for Northeast Grid. The annual power supply for Shenyang will be 14 billion KW/h with maximum power of 2.7 million KW and annual per capita power consumption of 500 KW/h.
 - Seek for new gas source, expand its application and popularize gas supply. Carry out the second stage project of introducing Fushan coal gas and get ready for the project of utilization of Russian natural gas. Speed up the construction and innovation of gas pipe network with a daily gas supply of 1.8 million m³.
 - Step up the urban concentrated heat supply program and complete the project of Shenyang Thermal Plant (stage 3), Taiyuan Street concentrated heat supply, Jinshan heat power combined production expansion, concentrated heat supply for Shenhai and New North Railway Station areas. The concentration heat supply rate will reach more than 65%.
 - Actively develop the utilization of new energy sources including wind and solar and construct Kangping Wind Power Station.
- Urban Residence / Community
 - Complete the relocation of shed area. Priority should be given to economic and suitable housing and appropriately develop medium and high-grade commodity housing. Develop and build large residential granterers including Wangjianzhunag. The plot area of housing should not be less than 4.5 million m² every year and in five years per capita housing plot area will reach 25 m².
 - Strengthen the environmental construction of the community and develop community services including tutoring, clearing, decoration, care, retail sale of newspapers and periodicals and nursing. The residence afforestation rate will be 23% and the newly-constructed residence more than 30%.
- Post / Telecommunications
 - Form a modern postal system with rational layout, advanced technology, rapid delivery and quality service. The postal integrated business computer network will be linked to the national relations. There will be 355 postal offices (sub-office) with an average service population of 20,300 persons for each place and average service radius of 3.6 km.
 - The telecommunication construction and development should meet the standard of urban modern telecommunication network in developed countries. Construct speed optical-fiber main telecommunication network and broadband integrated business digital network to form a broadband speed information network with perfect functions, advanced technology, high efficiency, great safety and reliability and wide coverage. Speed up the construction of optical-fiber connection network project. Gradually realize the "Three Networks Combined into One" for telecommunication, TV and computers. The number of urban tele-

phone lines will reach 2.70 million. The number of long-distance telephone line will reach 100,000. Every hundred people will have 53 telephones and 5 computer network terminals.

□ Hunnan New Area / Township

- Fulfill the overall plan for Hunnan New Area of 76 km². Construct University City, Automobile City, Cultural Fair, living quarters and bonded processing area. Moderately develop the land for new and high-tech industry.
- Center on the construction of five towns where the district and county (city) governments are stationed. Priority will be given to the development of seven townships, namely, Ci-yuduo, Hushitai, Hutai, Shaling, Chenxiang, Baita and Daoyi. The townships will have a population of 1.4 million.

5. 1. 5 Ecological Environment

□ State Land / Mineral Deposits

- In five years, non-agricultural construction land shall be controlled within 1200 hectares for each year, of which occupied arable land controlled within 840 hectares. Every year 1000 hectares of wasteland shall be reclaimed and leveled. 690,000 hectares of arable land shall be retained. Industrial land use in central urban area shall be reduced and public land use for urban afforestation, civil facilities and public parking lot shall be expanded.
- Avoid land pollution caused by excessive use of chemical fertilizers, farm insecticides and plastic films. Strictly restrict the discharge of wastewater, waste gas and waste materials in the city to rural areas and stop using sewage for irrigation of farmland.
- Legally intensify the supervision and management of the mineral resources exploitation and comprehensive utilization and resolutely curb the destructive lumbering of forests and mining. Expand the utilization and development of regenerative resources, speed up the formation of regenerative resources industry and effect the sustainable utilization of resource.

□ Water Resources / Rivers

- Conduct risk elimination, fortification, maintenance and remolding for the existing reservoirs to raise the capacity of water storage. Get everything ready for the preliminary work for the projects of Shifusi Reservoir and water drawing from external source. The area of paddy fields shall be controlled within 2 million mu and the utilization rate of surface water shall reach 70-80%.
- Implement comprehensive treatment of small river basins and fully attain the goal of water pollution control over Liaohe River Basins defined by the State Council so that the water quality in Shenyang Basins of Liaohe River and Hunhe River can meet the national standard for water of class 4 and other water body and quality meet the standard for their corresponding functional region.

□ Atmosphere / Sewage / Rubbish / Noise

- Continuously improve the urban ambient air quality and carry out the license system for discharge of atmospheric pollutants. Intensify the comprehensive control over pollution source in key enterprises and sectors, push forward clean production and reduce the discharge of contaminants. Control the consumption of coal in central urban districts. Extend the dual-fuel automobiles and encourage the use of environmentally friendly new cars. The comprehensive pollution index for urban ambient air should be lowered from moderate to low level as soon as possible.
- The license system for water pollution should be practiced. Accelerate the construction of sewage treatment plant and the sewage utilization rate should reach 20%.
- Reduce the quantity of domestic rubbish and industrial solid scraps, which should be harmlessly treated and regenerated with a harmless treatment rate of 100%.
- Control traffic noise and comprehensively treat social noise so that regional and traffic noise will meet the functional region standard completely.
- Urban Afforestation
 - Priority shall be given to the afforestation program in the regions within and along the Second Ring Road, between the Second and Third Ring Expressways, urban exit roads, railway lines, North and South beach land along the Hunhe River and South and North Canals, forming an urban “Green Lung” system.
 - Construct Popular Science Park, Hunhe Forest Park and Dingxiang Park, Nujiang Park, Desheng Park, Beita Park and Dingxiang Dragon King Temple Park. Urban garden afforestation should attain the National Garden City Standard. The per capita public green land share of the entire city shall reach 6 m² with an urban afforestation rate of 35%.

5. 1. 6 Residents' Living Standard

- Income / Employment
 - The involvement of capital, technique and other production factors in the allocation should be encouraged. The allocation modes, such as project wage system, share option and annual salary should be promoted. Formulate minimum reward criteria of work hour and protect lawful income.
 - For city and town dwellers, per capita disposable income will be 10000 yuan and for peasants, 5000 yuan with an annual growth rate of 10% on average.
 - Attention should be paid to the development of labor intensive industry. Enterprises that can increase job opportunities shall be given preferential policy and development of private and industrial businessman shall be encouraged.
 - Strive to open up extraterritorial labor market and expand labor export to provide more job opportunities.
- Housing
 - Center on the improvement of living environments for urban and rural residents. Most urban residences should be in the scope of standardized property management and go on with

the construction of some garden type residences and a group of high standard intelligent demonstration sub-districts. The per capita housing plot area will reach 25 m² with an afforestation area of 23% and new residence afforestation rate of 30%.

- ☐ The dwellers in the rural area will live in houses of brick-concrete structure, which will be gradually concentrated in townships. In the rural area the popularization rate of safe drinking water will reach 100%.
- ☐ Consumption
 - ☐ Through the rational guidance of consumption policy, residents' food structure will be more scientific and nutritional and expenditure for endowment, child-care, health care, education, culture, recreation, purchase of housing and car, insurance and leisure tour will be increased more and more.
 - ☐ In 2005, Engel's coefficient of urban and rural people will drop from 42% in 2000 to 35%. The per capital daily intake will be 2800 kilocalories.
- ☐ Social Security
 - ☐ Establish a minimum standard of living for city residents with social endowment insurance coverage of 100%. Establish and perfect systems of retirement insurance, basic medical insurance, work injuries insurance, birth insurance and unemployment insurance for city workers with a coverage of 80% for medical insurance. Strengthen the social welfare, social relief and special care for disabled servicemen and families of revolutionary martyrs.
 - ☐ Improve residents' health and carry out public preventive immunity measures by force. The planned immunity rate will reach 98%. The infections disease will be controlled below 269 for ten thousand people. The infancy mortality rate is below 12% and that for pregnant and lying-in women below 24 for 100,000 women. The popularization rate for health education will be 90% with a per capita life expectancy of 74.

5. 1. 7 Urban Administration and Supervision

- ☐ Standardize the functions and powers of governments at all levels lawfully and streamline government organs.
- ☐ Continue to improve and raise the capability of specific operation and strategic direction in addressing problems of local administration and supervision on the part of government officials.
- ☐ Establish sound and close cooperation between the administrative and legislative departments so as to solve problems effectively.
- ☐ Raise the transparency, involvement and coordination in affairs run by various departments.
- ☐ Ensure that the city and the whole region can develop in coordination and contradictions arising in the process of development between neighboring cities will be solved through complementarily.

5. 2 Long-Range Strategic Plan In Each Field

Shenyang will achieve its goals in economy, society, environment and urban management defined in the city development strategic plan through concerted efforts of the whole city. Citizens and social bodies have made an appraisal and examination of the city development strategy. They will do so with respect to programs and projects designed for implementation of each strategy, which are the foundation for carrying out the city development strategy.

5. 2. 1 Agriculture

Implement strategic adjustment of agriculture and economic structure in rural areas, optimize the regional layout of agricultural economy and completely raise the industrialization level and superior product rate. Priority shall be given to six leading industries, namely grain, vegetable, meats, milk, forest and fruit, flowers and plants which have local features. In order to achieve this strategic goal, the following implementation programs are formulated:

- ☐ Development and Construction of Modernized Agricultural Pilot Area.
- ☐ Development and Construction of Standardized Agricultural Demonstration Area.

5. 2. 2 Manufacturing Industry

Completely adjust the ownership structure, optimize the resource allocation and effect the optimization of productivity layout and strategic shift of state-owned economy. Highlight innovations in system, structure and technology and speed up the new and hi-tech industrialization and cultivation of new growth points. Form a number of large enterprise groups which have international standing and influence with their independently owned intellectual property rights, prominent business line and good spurring capability. Develop the “Four Pillar Industries” of automobile, machinery, electronic information and chemicals and pharmacy into modern manufacturing industries. In order to achieve this goal, the following implementation plan is drawn up:

- ☐ Upgrading equipment manufacturing with new and hi-tech
- ☐ Strategic adjustment of state-owned economy
- ☐ Adjustment and transformation of Old Industrial Area in Tiexi
- ☐ Industrialization of new and hi-tech

5. 2. 3 Service Industry

In accordance with the standards and requirements of modernization and internationalization, continue to expand the scope of service industry and accelerate the industrialization and marketization of finance, sci-tech, education, culture and sports. Consolidate and intensify the position and role of regional trade and commerce, financial and information centers. The implementation plan designed to achieve this tragic goal is as follows:

- ☐ Hunnan Trade & Commerce Area
- ☐ Regional Finance & Credit
- ☐ Human Resources and Service Development

- Specialization, Scale Orientation and Socialization
- Development of Tourist Resources

5.2.4 Urban Facilities and Environmental Management

With the improvement of residents' living environment quality as the goal, actively adjust the urban layout, vigorously speed up the construction of traffic, water source, energy source, residence, Hunnan New Area and urban and rural environment and comprehensively step up the modernization of urban infrastructure to build Shenyang into a cosmopolitan city with rational layout, perfect facilities, sound environment and civilized society. The implementation plan designed to achieve this strategic goal is as follows:

- Construction of Hunnan New Urban District
- Urban Broadband Information Network
- Urban Traffic Project
- Gas Project
- New Water Source Project
- Urban Heat Supply Project
- Residence for Dwellers
- Sewage Treatment
- Solid Rubbish Treatment
- Purification of Urban Atmosphere
- Urban Landscaping
- Eco-environmental Preservation Area

5.2.5 Administration and Supervision

This development strategy is chiefly to create a sound environment of law and policy and promote various development activities. Through positive and effective legislation the development strategy aims at raising the work efficiency and specialization of city government organs, improving the city management, intensifying coordination between regions, increasing tax revenue and seeking multiple financing modes. The focal point of this development strategy is to raise the capabilities of public servants in city planning and implementation, urban administration and operation through tempering and training. The implementation plan designed to achieve this goal is as follows:

- Cultivation of public servants' professional ability and overall quality and perfection of government's operation system.
- Perfection of assets management system of SOE
- Inter-regional economic and technical cooperation
- Establishment of public financial system

- Increase of tax source and expansion of financing scale and scope
- Legislation on opening to the outside world, investment promotion environmental management
- Urban management and operation

5.3 Confirmation of Plans and Projects

5. 3. 1 Advancement, Appraisal and Examination of Plans and Projects

Shenyang Municipal Government convened two constancy meetings, discussed the foregoing implementation schemes, made appraisal and examination and finally put forward the plans and projects for the city national economic and social development strategy.

Refer to Table 8-Schedule of Plans and Projects

5. 3. 2 Preferential Sequencing of Plans and Projects

- Criteria for selection. From ten criteria set by UN Population and Residence Center, five were chosen as basic for sequencing of projects. The plan and project that have the greatest influence are rated at a score of ten, the lowest being one. The final is obtained by multiplying the score of each plan and project with standard rate.

Refer to Table 9-Selection Criteria for Preferential Sequencing of plans and projects

- Sequencing of Projects

Refer to Table 10- Preferential Sequencing of Plans and Projects

5.4 Plan of Capital investment

In making the plan for capital investment to support and implement city development strategy, the Municipal Government also took into consideration other on-going new projects, in addition to the foregoing. Cultivation of personnel capability, formulation of rules and regulations, schemes for adjustment of economic organs, administration and supervision are all the fundamental constituents of CDS projects. In actual facts, these projects may not have definite and fixed capital expenditure. They will be explained in the part of implementation plans.

5. 4. 1 Distribution of Projects

In order to achieve Shenyang's development vision, government departments, counties and districts, and enterprise proposed many projects. Following are only representative ones which have been selected.

- Agriculture
 1. Construction Project of Sci-tech Farm Park.
 2. Project of Quality Nursery Stock Corridor in Xinchengzi District.
 3. Construction Project of Forestry Industrial Technological Development Demonstration Base.

□ Industry

1. Shenyang Nano Materials Park project
2. Shenyang STM Industrial park Project
3. China Northeast 863 Software Park
4. Shenyang Shenhua Tiancheng Bio-tech Park
5. Environmentally-friendly Auto Production Project
6. Major Complete Technical Equipment Project for Sewage Treatment
7. Industrial Robot and Major Equipment Industrialization Project
8. Cryogenic Nuclear Heat Supply Industrialization Project
9. New-type Fuel Battery Construction Project
10. Natural Compound Engineering Research & Production Base Project
11. Highly Efficient Harmless DK-1 Bio-insecticide Project
12. Human Erythropoietin (EPO) Project

□ Urban Infrastructure

1. Transformation of Sewage Draining System Using World Bank Fourth Phase Loan
2. Transformation Project of Urban Drainage
3. Hunnan Heat Supply Project
4. Concentrated Heat Supply Project in Taiyuan Street Area
5. Demonstration Project for Dangerous Refuse Incineration
6. Laohuchong hygienic Embodiment Treatment Plant Project
7. Northwest Rubbish Incineration Treatment Plant
8. Lingkong Sewage Treatment Plant
9. Cryogenic Nuclear Heat Supply Project
10. Shenyang Street & Road Landscaping
11. Project of Overall Transformation Support Facilities in Tiexi Industrial Area
12. Project of Urban Rail Traffic
13. Comprehensive Transformation Project of Information Network
14. Integrated Construction Project of Hunnan Infrastructure
15. Expansion Project of Dahuofang

Refer to Table 11 Briefing of preferred key projects

5. 4. 2 Forecast of Demand of Plan and Project Investments

The investment demand is forecast on the basis of discussion, appraisal and determination of plans and projects in combination with the minimum and probable investment requirement for plans and projects. The demand is estimated in light of category. For example. The “New and Hi-tech Transformation Manufacturing Industry” covers all the technical transformation projects for Shenyang’s traditional manufacturing industry in the twenty years to come. Another example, “Sewage Treatment” covers more than ten construction projects of sewage treatment plants,so are other plants and projects.

Refer to Table 12□ Forecast of Demand of Plan and Project Invest ment.

6.0 Institutional Action Plan

6.1 Adjustment and Reform of Public Organs

6. 1. 1 Present Situation

- The chief duty of Shenyang Government Organs is to conduct comprehensive administration and provide corresponding service for enterprises and citizens.
- Some chief departments of the city, such as administration service and technical service “A,B,D,E” are to provide some basic urban services (refer to the foregoing organization). Recently the duty of comprehensive administration departments “B,D” is intensified and direct control over enterprises is reduced.
- The functional shift of government organs and restructuring campaign haven’t attained their expected goal. Problems of a bloated size and overlapping functions still exist.
- It is necessary to review the existing functions of various departments and enhance the staffing, management and functioning so as to meet the requirement of city development.

6. 1. 2 Guiding Lines

- Restructuring and reforming must start from a general survey instead of from a local point of view and simultaneously take into consideration the conditions of local economy and social development and the government’s actual management capability.
- As a large city, restructuring and reform must conform with state laws and policies and set a good example for other cities and regions.
- As a regional central city which plays an important role in all aspects, she must launch a close cooperation with nearby regions and communicate with them so as to gain the best coordination effects.

6. 1. 3 Orientation and Vision

- In accordance with the requirement of setting up a socialist market economy system and administration institution, emphatically strengthen integrated economic regulatory departments, comprehensively establish departments in charge of urban construction and management, traffic, agriculture and cultural management, intensify law enforcement and supervision departments, cancel and adjust department incompatible with market economy,

merge departments of overlapping functions, similar business and single function and reduce administration levels.

- Capability to implement the city development strategy for national economic and social development.
- In all aspects and steps of urban administration, IT shall be used so as to improve the capability of basic service, supervision and regulation.
- With regards to poverty-alleviating program and environment protection, actively explore new channels and bring the interacting effects of public and private economy into full play.

6. 1. 4 Adjustment and Reform Plans

Shenyang has finished new plans for government restricting and reform, which haven't been published, so they are omitted here.

6.2 Mobilization of Resources

- The estimation of capital source for 2001-2005 is actually an introduction to the city's economic capacity, which can define the capital source for all the plans and projects for the city development.
- Chief source of financial revenue comes from the portion deducted from the state financial revenue collected by the local government and the deduction ratio is 33%, which won't be raised until 2005. It is estimated that by 2005 all the investment will call for a sum of 186.74 billion yuan, but the possible financing will amount to 168.0 billion yuan, the balance being 18.74 billion yuan.
- The Municipal government is planning to reduce gradually the proportion of capital investment in the financial expenditure and increase the expenditure of public facilities and citizens welfare benefits. Therefore the main financing means is to gain more bank loans, private investment and overseas investment in the five or twenty years to come. Governments at all levels will support and promote financing activities in terms of the preferred order of all plans and projects.

Refer to Table 13 □ Estimation of Capital Source

6.3 Regulatory Measures

6. 3. 1 Overall Vision

Speed up the reform and renovation in economic management system and urban administration system and promote the realization of the vision of building Shenyang into an advanced equipment manufacturing base, new and hi-tech industrialization base, modern agricultural demonstration base, regional trade and commerce, finance and information center and a cosmopolitan city full of vitality and dynamics. Simultaneously it will become an environmentally-friendly city with a long-term sustainability.

6. 3. 2 Tasks of Reform and Adjustment of Management Measures

- Comprehensive structural reform and innovation in system

- Speed up the establishment of modern enterprise system in SOE, promote the reform of all medium and small enterprises in equity system and perfect enterprise equity organization form.
- Perfect state assets operating system and perfect the state assets management and operation system supervised by the government, operated by assets management company and undertaken by the enterprise for value preservation and appreciation on the principles of state ownership, classified management, franchised operation and division of supervision.
- Develop multiple-ownership economy. Most state-owned economy has transferred to share holding, equity participation or full withdrawal by reduction of state shares, private and foreign-invested enterprises should be encouraged to make contributions to the promotion of regional economic development, support and participation in SOE reform, increase of job opportunities and social service.
- Advocate multiple investing entities and encourage trans-regional, trans-sectoral and trans-ownership investment and operation.
- Streamline government organization and staff and establish a highly efficient, well-coordinated, standardized, just, clean and open administrative system.
- Decrease financial expenditure in operative and competitive fields, expand the scale and scope of government purchasing and guarantee financial funds for public works, public service and public utilities. Ensure the increase of legal expenditure for agriculture, education, sci-tech and social security.
- All-around opening-up
 - Participate in international division and competition is wider scope and with the in-depth level, make haste to be in line with world economy, make the best use of international investment and encourage extraterritorial investment.
 - Promote trans-city and trans-provincial economic associations with emphasis, speed up the process of economic integration for cluster of cities in the middle of Liaoning and actively participate in the Development of West Regions in China.
 - Guide foreign investment to such fields as the transformation of agriculture and traditional industries, new and hi-tech industry, urban infrastructure construction and service trades. Intensify the capital introduction from North America, Japan and EU and increase the investment proportion of developed countries and regions in Shenyang.
 - Adopt all the non-debt internationally accepted financing modes, encourage non-state-owned economic sectors to invite business investment and the proportion of foreign capital absorbed by private economy shall be raised to 20% of the entire city gradually.
 - Further determine the key industries and trades, and key enterprises and products in which joint venture and cooperation with transnationals will be launched. Step up assets re-grouping and raise the bearing capacity to attract transnationals so as to direct foreign economic and technical cooperation toward multiple fields, diversity and all directions. Pay

attention to this introduction of advanced technology and key equipment, give support to the establishment of R&D agencies in Shenyang by transnational and advance the perfection of technical innovation system.

- Create an environment of policy and laws for enterprise's extraterritorial investment and operation, support enterprises with better advantages to invest and run factories in countries and regions in Africa, Middle Asia, Southeast Asia, Middle East, Eastern Europe and South America, establish overseas bases of processing, sale and resource development, effect scale transnational operation of specialization and intensification in larger scope, promote the export of techniques, equipment, raw materials and parts and increase foreign engineering contracting projects and labor export service.
- Improve service quality for investors. Further simplify procedures of examination and approval, and create efficient and standardized environment for investment. Establish effective systems of load conversion, guaranty and liability for control of foreign debts. Intensify the repayment of debts, rationally clear bad debts and strictly restrict project of hidden debts, grant foreign-fund enterprises the same treatment as their Chinese counterparts and provide sound production, operation and living conditions and environment.
- Measures in Industry.
- Improve the farm land use right system, allow the rational transfer of land use right and promote the land to concentrate on big growers and large agricultural enterprises.
- Reform the mode of agricultural input. On the basis of continuously increasing government's input in agriculture, form a diversified input pattern with equal stress laid on domestic capital, overseas capital and finance. Concentrate funds to ensure the successful implementation of projects in water conservancy, forestry and meteorology.
- By increasing the amount of state capitals in non-competitive SOE of energy, power, gas, running water and military industry, raise the quality of capitals in these businesses, and consolidate their important position and role in national economy. Lighten the burden of SOE in competition fields through necessary debt-to-equity transformation and bad debts cancellation, absorb overseas or non-government capital and gradually transfer from wholly state-owned to state share-holding, equity participation or full withdrawal from the state-ownership.
- Draw up polices and measures that encourage middle and small private enterprises to develop, safeguard the legal rights and interests, set up development promotion agencies with the function of integrated coordination and service and simplify the application procedure of registration by enterprises.
- Legally close down those enterprises that have no safe production conditions and no advantages in competition with backward equipment and technique, out-of-date process technology, poor product quality, great waste of resources and series pollution.
- Break the monopolized situation by state-owned economy in industries such as telecommunications, finance, urban heat and gas supply, public transportation and education and relax restrictions to market admission.

- Cancel the direct administration relationship between the intermediary services in accounting, taxation, assets appraisal, real estates appraisal, lawyer, engineering constancy and patent agency, and government departments. They should operate independently according to law.
- Enhance and support tourism, transportation, finance, insurance, information network and intermediary service to develop foreign joint venture and cooperation. In conforming with the state laws and policies, some fields in Shenyang will be allocated for investment and operation by foreign businesses and transnationals.
- Some welfare services including nine-year obligatory education facilities, preventive health care, libraries and science museum should continue to be financed by government. Service for non-obligatory education, medical care, tourism, sports, culture and community should be remolded as enterprises in accordance with the requirement of modern corporate system, which will become the main bodies in market competition of home and abroad as independent legal person entities.
- Effect industrialized and enterprise-oriented operation of service including urban water, gas and heat supply and public passenger transportation step by step.
- Measures Taken in Urban Construction and Management
 - Investment and fund-raising system
 - Based on the non-commercial capital raised by the government, open up capital source for urban construction at all levels, vigorize the existing stock and form a diversified input pattern.
 - Perfect the system and procedure for the compensated use of state land and other facilities, enlarge the foreign investment scope for service trade and speed up construction of civil public utilities.
 - Adopt more flexible and effective policies and measures to encourage housing construction by individual investment, purchase and fund-raising cooperation to form a rational investment system by the state, work unit and individual. Promote the reform in housing rent and carry out the differential rent. Vigorously develop housing finance and relax control over individual housing loan.
 - The investment in village construction should be based primarily on collective and individual. Raise construction funds in different ways and encourage peasants to participate in township construction with their own funds. On the principle of “ whoever invests in construction shall benefit”, support the construction of public facilities for gas, water supply and drainage and rubbish disposal by individual investment.
 - Widely introduce foreign investment and by adopting cooperation, joint venture and other effective modes, attract foreign investment in project of urban construction to supplement the shortage of urban construction funds.
 - By transfer of the use right, operation right and name right, solicit capitals from large business and group companies at home and abroad for construction of urban infra-

structure and key projects.

- Gradually enhance the ability to repay the loan for urban construction and form a repayment operating system that is based on government input, used for urban infrastructure or guaranteed by service charges.
- Conscientiously bring the initiative of People's Congress at all levels, government organs, mass organization, mass media and city dwellers into full play and establish a system of the supervision, management and operation of urban construction investment, which is directed chiefly by the government departments and coordinated by professional departments so as to effectively better the use and management of urban construction funds.

□ Project Construction System

- Establish strict investment decision-making responsibility system. For all projects of urban construction, such systems shall be systematically practiced as project bidding and tender system, owner responsibility system, project supervision system, budget and final budget audit system, contract responsibility system, capital in cash system and joint examination and approval system so that all the links of the urban infrastructure construction have rules to follow and laws to observe, guaranteeing a quality, efficient, scientific and rational engineering construction systematically.
- Enhance the beginning-to-end management of urban construction project and establish a set of scientific and rational procedures to that effect around the stages of project implementation including decision-making, implementation, completion, commissioning and operation in combination with the project examination and approval.
- Further perfect the bidding and tender system, contract responsibility management system and supervision systems. In the process of project construction emphasis should be laid on carrying out the procedures of market economy and further bring the initiative of the society and intermediary into full play. For government's investment project of public infrastructure with operational nature, the undertaker should be fixed through bidding.

□ Urban Planning Management

- In accordance with "Shenyang City Overall Plan", lose no time in fulfilling the controlling detailed plan of "dispersive group type" layout for central urban district and the plan for four nearby sub-cities and two groups, strengthen supervision and inspection of the planning and prohibit illegal construction.
- The leading role of the government in urban planning should be brought into play. By use of administrative planning, differential rent and administrative regulations, adjust the urban layout and capital should be focused on the image construction of main landscape roads, central shopping malls, development zones, large residential quarters, Hunan New Area and other key areas and blocks.
- For key areas and blocks, regional and sectional plans should be carried out. Strict rules should be made with regards to the grade, style and function of key blocks and its re-

alization shall be ensured through competitive bidding.

□ Use, Maintenance and Management of Urban Infrastructure

- Reform the system of use, maintenance and management for urban infrastructure gradually in terms of market mode, perfect all the laws and codes, establish a sound and effective management mechanism, form a beneficial cycle for the construction, use and maintenance of urban infrastructure and raise the overall support ability of urban infrastructure and service level. Stress on the management of urban roads and maintenance of underground ductwork.
- Develop the repair management market for urban houses and civil public facilities, strictly carry out the system of design, construction and project supervision in light of qualification and rating.
- Gradually rationalize the price of urban water supply, gas supply and heat supply. For public passenger transportation, competition mechanism and diversified operation shall be introduced in an all-around way and financial subsidies reduced step by step.
- Continue to make efforts in launching price reform in urban housing so as to turn housing construction and maintenance to a beneficial cycle. Establish and form a new system of residential community and sub-district property management. The total proportion of houses which effect the socialized and specialized property management will reach 80%.
- Further perfect and intensify local regulations including "Management Procedure for the Appearance of Shenyang". Enhance the management of urban sculpture and advertisement design. Do well the comprehensive control of main streets and area integrating city with town. Cancel "Street Market", strengthen the management at the municipal, county (district) and neighborhood levels. Bring the initiative of city dwellers into full play. Strengthen the building of law execution officials and supervisors who should strictly enforce the law so that the urban management may be legalized

□ Urban Environmental Management

- Conscientiously put the environmental protection on the chief agenda of governments at all levels. The environmental protection target responsibility system should become the chief indicator for performance chief of government at all levels and main leaders. The environmental protection plan and target should be included in the annual plan for the national economic and social development.
- Intensify the quantitative check of comprehensive control of urban environment, and set up a system of supervision and inspection.
- Continue to carry out the economic system of "who ever causes pollution shall be responsible for its elimination". Compensation for the developer and restoration by the destructor.
- Regularly publish to the public the environmental quality status and establish the mass participation system in major environmental decision-making. With respect to major development program, plan and industrial policy involving in the entire city or region,

environmental risk appraisal (evaluation) should be made.

- Establish a modernized city-level environmental monitoring network system.
- Revise and perfect some codes and regulations.
 - Revise the “ Regulations on Controlling Atmospheric Pollution of Shenyang” and enact “Rules for the Implementation of Regulations on Controlling Atmospheric Pollution of Shenyang”.
 - Revise the “Procedure of Shenyang for the Administration of Environmental Protection for Construction Projects” and enact “Detailed Rules for the Implementation of Collection of Pollution Discharge Fee in Shenyang”, “Rules of Shenyang for the Implementation of Law of PRC on Controlling Environmental Noise Pollution”, “Provisions of Shenyang for Control of Total Pollutant Discharge”, “Procedure of Shenyang for the Supervision and Management of Exhaust Air Pollution by Mobile Vehicles”, “Procedure of Shenyang for Management of Environmental Protection Industry Market”, “Standard of Shenyang for Discharge of Atmospheric Pollutants from Boilers”, “Procedure of Shenyang for Management of Embodiment and Disposal of Dangerous Scraps”, “Regulations on Ecological Protection & Management” and “Regulations on Development and Utilization of Water Resources”.
- Technical Policy Of Environmental Administration
 - Perfect the technical policy of controlling total pollutants and policy of changing for release of pollutants.
 - Specific provisions shall be drawn up on pollution control including promotion of energy-saving pollution reduction, clean energy source and clean production process and final treatment. Encourage the development of ISO 14000 environmental management system certification. Try out the preferential policy of finance and taxation for clean production.
 - Formulate technical policies of controlling agricultural pollution, including : restrict the use of chemical and farm insecticides, promote highly-efficient, non-pollutant green fertilizers and organic fertilizers, control the pollution from livestock farming and protect farm water source.
 - Carry out the policy of charging for treatment of urban sewage, rubbish and dangerous scraps. The pollution discharges should be classified in terms of the volume of sewage and rubbish and their toxicity and charged according to the whereabouts of pollutants.

6.4 Community Action Plan

Integrate the existing social organizations into a complete network, which will take part in the research, formulation and implementation activities concerning urban construction and development strategy under official auspices.

6.4.1 Organs and Departments Involved

- Non-government organs / People’s Congress/ Political Consultative Conference

- ☐ Private Sectors
- ☐ Mass Media
- ☐ Educational Institutions
- ☐ Professional Bodies
- ☐ Industrial and Commercial Businesses
- ☐ City dwellers

6.4.2 Contents of Activities

These social organizations and city dwellers can take an active part in the development projects of the following fields. The Municipal Government will reward these social organizations and city dwellers as required.

- ☐ Employment, income increase
- ☐ Urban facilities and service
- ☐ Environmental administration
- ☐ Supervision over development plans and projects and also over major links in the development process.
- ☐ Successful experience in the activities will be passed onto other regions.

6.4.3 Information Handling

- ☐ Regularly handle the feedback information from all sides and provide the most up-to-date information for the relevant urban plans and projects.
- ☐ Regularly observe the activities conducted by the public to gain the grass-roots information, which will be summed up with regards to hot topics, such as employment, relocation settlement, public health, environmental pollution, civil service and social security, they should be reported directly to the Mayor or other responsible officials. The current problems should be studied and tackled in time and plans and projects for addressing these should be discussed.

6.4.4 Programs and Items

In order to guarantee the sustained action of all the social organizations and city dwellers in the activities of the city development plan, the following programs and items will be set up:

- ☐ Citizens Complaint Center
- ☐ Clean Government Supervision System
- ☐ Environmental Patrol System
- ☐ Crime Patrol System
- ☐ Health / Disease Patrol System

6.4.5 Foreign-Related Activity

Active participation in all the development activities held in relevant cities at home and abroad.

Table 1: Statistic Datasheet of Housing, Household, Education, Health of Shenyang City

Index	1990	1995	1997	1998	1999	2000
Household (ten thousand)	188	202	206	208	213	218
Per capita living space m ²	5.7	6.9	7.5	7.8	8.1	8.4
Students in regular schools (ten thousand)	106	112	115	113	112	113
Beds/Doctors owned by 1000 persons in hospital	5.8/3.2	5.8/3.2	5.7/3.1	5.6/3.0	5.5/3.0	5.3/3.0

Table 2 :Statistic Datasheet of GDP (a hundred million yuan)

Index	1980	1990	1995	1999	2000
GDP	56.7	234.5	682.6	1013.2	1116.1
First industry	6.5	23.8	51.2	69.8	71.0
Secondary industry	36.3	107.1	303.7	444.0	494.9
Tertiary industry	13.9	103.6	327.7	499.4	550.2

Table 3: Statistic Datasheet of Working Persons Employment (Ten thousand persons)

Index	1995	1996	1997	1998	1999	2000
First industry	69	74	78	83	87	89
Secondary industry	168	162	152	144	135	134
Tertiary industry	141	148	156	153	155	156

Table 4: Statistic Datasheet of Financial Revenues and Expenditures (a hundred million yuan)

Index	1995	1996	1997	1998	1999	2000
Local financial revenues	35.67	39.93	47.90	54.20	56.79	61.12
Tax revenue	34.23	35.07	39.95	40.99	51.61	56.33
Local financial expenditure	45.89	49.80	60.45	70.86	79.60	92.49
Capital construction	8.30	7.19	8.68	9.41	8.26	7.73
Science/technology	0.80	0.95	1.07	1.30	1.41	1.66
Agricultural production	0.73	0.77	0.93	1.23	1.23	1.41
Urban maintenance	4.30	5.77	7.07	7.53	8.64	10.23
Culture, education, health	10.33	8.95	9.69	11.56	13.04	17.81
Administration management	3.04	3.28	3.79	4.08	4.39	5.06

Table 5: Statistic Datasheet of GDP and resident income (a hundred million yuan)

Index	1999	2000
GDP (a hundred million yuan)	1013	1116
Per capita GDP(yuan)	14963	16292
Urban per capita disposable income (yuan)	5364	5850
Rural per capita annual income (yuan)	3100	3135

Table 6: Statistic Datasheet of Urban Fixed Asset Investment (a hundred million yuan)

Index	1999	2000
Fixed asset investment	240	262
Capital construction	113	118
Upgrading and reforming	42	52
Other investment	34	28
Real estate development	52	64
# Residents House	62	96

Table 7: Main Problems and Opportunities Profile

Problems	Opportunities
<p>1. Labor/employment</p> <p>(1) Urban employment needs to be increased</p> <p>(2) Urban and rural working persons' income to be increased.</p> <p>(3) Taking-over rate of pension and unemployment insurance expense has not reached the legal requirement.</p> <p>2. Manpower resource development</p> <p>(4) Senior talents are lacking.</p> <p>(5) Well-trained personnel are not sufficient</p> <p>(6) Rural education facilities are simple and crude.</p> <p>3. Resident houses</p> <p>(7) The houses construction needs to increase continuously to satisfy the demand of the constantly increase of the population and household.</p> <p>(8) The simple resident housing to be demolished</p> <p>(9) The housing loan needs to increase to enhance the housing purchase capability of the residents.</p> <p>4. Urban infrastructure</p> <p>(10) Urban expansion is constrained by the area of the old urban districts.</p> <p>(11) Residential area and factories in the downtown occupy too much land.</p> <p>(12) Partial urban water supply and drainage pipelines are old, supply/distribution system and drainage systems do not match and are not clear and the low- pressure water supply area and ponding area exists.</p> <p>(13) Partial equipment for gas supply/ distribution systems is aged and has insufficient distribution and storage capacity.</p> <p>(14) Urban communication roads have unbalanced load and the communication facilities like automobile parking areas are lacking. The residents cannot conveniently ride the transportation means.</p> <p>(15) Facilities for pollution-free treatment of sewage, solid waste materials are not sufficient.</p> <p>(16) Urban greenbelts are lacking, greenbelt area per person in core district is less than the national standard of 7-11 m² and the greenbelts are not evenly distributed.</p> <p>(17) The urban garbage is not cleaned up in a timely manner.</p> <p>(18) Urban construction and management regulations and rules cannot be thoroughly carried out and implemented.</p> <p>(19) Capital for the urban infrastructure construction</p>	<p>(1) (2) The investment for urban infrastructure facilities and social public projects has increased constantly and non-common economy has increased rapidly.</p> <p>(3) It is state's mandatory requirement that all the regions must carry out pension and unemployment insurance system, 80% of the local financial increment must be used for social pension.</p> <p>(4) (5) The municipal government is now implementing the million talented personnel project. High/new tech talented personnel are being trained, and post-doctoral workstations have been set up and the state and Shenyang City have jointly worked to set up Business Establishing Garden for the students who have studied abroad and come back.</p> <p>(6) State, Provincial and Municipal governments have jointly implemented "Project-hope" and "Prairie Fire Plan" to improve the rural education facilities by increasing the government investment and social donation.</p> <p>(7) (8) Shenyang City's tenth five-year plan has defined that the housing of 4500000m² will be increased each year and per capita living floor area of 25m² will be reached by the year 2005.</p> <p>(9) The financial institutions will quit hold of the restriction of the resident house loan and the guaranteeing organizations for the real estate have started their normal operations.</p> <p>(10) (11) (17) The state has approved new "Shenyang City Urban General Program", and the area of the land to be used will be expanded, the land to be used for the service sector, industry, infrastructure, culture, residence, greening and etc. will be forcibly implemented in the form of the law. The program and construction of Hunnan New Urban Zone have been under implementation.</p> <p>(12) (13) The municipal government has planned that the renewal, reform and newly building of the urban water supply and drainage pipelines and gas transmission and distribution system will take place each year.</p> <p>(14) The cooperation with the investment organizations from Canada, etc. will be carried out to build the projects such as the urban rails and expressway systems within the city zone.</p> <p>(15) (17) The municipal government has com-</p>

is lacking and investment benefit is not high.

5. Economy

(20) The capability against disasters in agriculture is not strong.

(21) The industrial configuration in industry is not reasonable and the grade of the products is not high.

(22) There are not significant industrial projects.

(23) Service industries have severe monopolization phenomena and the degree of their industrialization, modernization and internationalization is not high.

(24) The current science and technology system does not match the market economy.

(25) There are too much products under the categories of the rough processed and energy products among the exported products.

(26) Much more foreign investments need to be attracted and introduced.

6. Finance and Public Economy

(27) The source items of the financial revenue increase slowly.

(28) The bad credit proportion is on the high side.

(29) Private and small enterprises are not easy to get the loan.

7. Government Management

(30) The government needs to boost the affairs handling efficiency.

pleted the preparation for the construction of two large sized sewage water treatment plants in Lingkong and in the west area, south waste land-fill, north-west waste Incinerating plant.

More garbage transfer stations will be set up.

(18) (19) The municipal government is now organizing the establishment of new urban investment and funding system, urban construction system, urban facilities maintenance and management system, which is under way.

(20) World Bank has loaned 37 million USD for developing the water saving and irrigation projects.

(21) (22) "The Tenth Five-year Plan for National Economy and Social Development of Shenyang City" approved and passed by Municipal People's Representative Congress has explicitly defined that the direction and the priority in adjusting the industries configuration is given to the development of vehicles, equipment manufacture, electronic information, chemical industry and medicine sector which are four leading industries and the priority projects that the municipal government has raised to be developed through the cooperation with big international companies.

(23) After China has entered WTO, the permission of the service industry's market entrance will be expanded and the monopoly phenomena will be weaken.

(24) The construction of Hi/new tech development zone will be speeded up implementing the construction plans for 11 university science gardens and 10 incubating bases.

(25) "Incentive Measures for Hi-tech Export" to encourage the export of the products under the category of technology.

(26) The capacity and level of the urban infrastructure is to be enhanced and the local laws and regulation concerning foreign affairs will be revised, added and improved.

(27) (28) (29) The financial revenue source projects are to be increased by speeding up the development of the new industries. The state-owned-banks will be turned into commerce banks.

(30) The municipal government is now performing the reform organizationally and functionally according to the market economy and international practice.

Table 8: Programs/Projects Profile

Programs/projects	Contents of Projects
Economic and social development	
1. Upgrading the manufacturing with Hi-new technology	a. Expanding the vehicle production scale through joint venture and cooperation b. Upgrading the technical level of products produced with the complete sets of equipment like NC machine tools and transmission and transformation electricity equipment using the electronic information technology c. Other manufacturing
2. Adjustment and reform of the old industry zone in Tiexi District	a. High-new tech industry projects to be set up in the District b. Pollution enterprises to be moved out
3. Industrialization of Hi-new technology	a. Industrialization of information technology b. Industrialization of biologic and pharmaceutical technology c. Industrialization of energy saving and environmental protection technology d. Industrialization of aviation technology
4. Manpower Resource and Service Development	a. Popularization of senior high school education and founding of Shenyang Application Technology College b. Developing and training of well-educated and specialized civil servants c. Implementation of the projects such as fostering Hi-new technology talented personnel, adult education, talented personnel return from abroad and etc.. d. Bettering of the talented personnel exchange markets e. Improvement of the medical treatment facilities and service level f. Providing all the impoverished population with social security
6. Leading Zone of Modern Agriculture	a. Modern agriculture fazenda b. Agriculture science/technology, information center c. Agricultural product exchange center
7. Demonstration Plot of Standardization Agriculture	a. Demonstration Garden of agricultural science and technology b. Production base of pollution-free agricultural products
8. Regional Finance and Credit	a. Daily fund interest rates on short term private loans and discount on note center b. Industrial investment fund, risk investment fund, Hi-tech development fund c. Credit and loan for medium and small sized enterprises Credit and loan for personal consumption
9. Community Service	a. Service stations for community management, Public security, sanitation, culture b. Help offering station for the unemployed and impoverished c. Industrialization of community service
10. Development of Tourist Resource	a. Tourist resource in history and culture to be continuously explored b. Sightseeing/tourist projects in modern industry and agriculture to be developed c. International service to be added
City Facilities And Environmental Management	
1. Construction of Hunnan New Urban District	a. Plan of Hunnan new urban district to be studied b. Flood prevention dykes and dams as well as bank protection facilities on both sides of Hun He river to be reinforced c. Three new bridges across over the Hun He river to be built d. Roads, water supply, drainage and heating systems in the District to be built e. Large residential area to be built
2. Urban Communication Project	a. Urban track communication b. Urban overhead expressway c. International airport to be extended d. Parking area in downtown
3. Urban Gas Project	a. Russian natural gas to be introduced b. Coal gas to be introduced from Fushun and Shengxi c. New gas transferring pipelines to be built and existing ones to be modified
4. Urban Heating Project	a. Low temperature nuclear heating station b. Urban centralized heating project
5. Residents House	a. Simple houses to be demolished

	<ul style="list-style-type: none"> b. Economic type houses to be built c. Large scale and standardization residential area in Wang Jiazhuang
6. New Water Source Project	<ul style="list-style-type: none"> a. Water source extensions projects b. Feasibility study on the project on introducing the east water into the west
7. Sewage Treatment	<ul style="list-style-type: none"> a. Two sewage treatment plants in Lingkong and the west area b. Project n reuse of the water treated
8. Solid Garbage Treatment	<ul style="list-style-type: none"> a. The south waste landfill b. The north-west waste incinerating plant. c. New urban garbage transferring station to be built
9. Urban Landscape and Greening	<ul style="list-style-type: none"> a. Two new parks to be built b. Greening of the main roads and avenues c. Green surfaces to be added along the railroads, river banks and brim of the city zone
10. Ecological Environment Protection Zone	<ul style="list-style-type: none"> a. Eight nature protection zones
11. Urban wide band information network	<ul style="list-style-type: none"> a. Wide-band information network b. Optical fiber switch-on project c. The e-commerce project
Administration Management and Supervision	
1. Fostering the professional ability and comprehensive quality of the government civil servants and bettering the operation system of the government	<ul style="list-style-type: none"> a. The professional ability in city planning and management to be developed and trained b. Initiatives and cooperation of Non-government organizations and townspeople with the governmental personnel are expected in the urban management
2. Increasing Source of Revenue, Expanding Funding Scale and Bound	<ul style="list-style-type: none"> a. Plan on increasing the source of revenue and tax revenue b. Plan on funding in the securities market and by other methods c. Attracting and introducing foreign investment
3. Legislation and Bringing into Effect	<ul style="list-style-type: none"> a. The laws and statues concerning foreign affairs to be revised b. The economic management system concerning foreign affairs to be reformed c. The city planning management regulations d. The investment and funding management system e. The bid/tender law f. The pollution control and ecological environment protection law g. Taxation law h. The city administration management law
4. Interregional economic and technical cooperation	<ul style="list-style-type: none"> a. Plan on economy/technology integration in urban agglomeration in the middle of Liaoning b. Regional production elements market c. Regional financial syndicate
5. Urban Management and Operation	<ul style="list-style-type: none"> a. Administration and organs to be simplified b. The reasonable and standardized mode and flow to be developed for the urban management c. The review and approval of the economic matters by the government to be reasonably reduced d. The information technology to be used e. Public competitive bidding system to be adopted for the urban construction projects f. The monitoring and assessing ability to be improved

Technical Projects	
1. City Comprehensive Plan	a. City development ability b. City strategic orientation and vision c. Activities program of putting the strategic vision into practice d. Policies and measures
2. Continuable city plan research	a. Evaluation of city environmental and management status b. Means of developments of environmental planning and management c. Strengthen construction ability, raise environmental ideas d. Push forward clean production, increase energy e. Regroup the economy and the society
on investment system and the surroundings	a. Analysis and evaluation of investment system and the surroundings b. Reform and management of city investment and financing system
4. Reform of the management system of st	a. Stock system of state-owned enterprises b. The internal scientific management, encouragement and restraining system of enterprises
5. Planning of increasing employment	a. Status of the economic and social development b. Analysis of labor force increase c. Employment situation of the poor people Planning policies and activities of enlarging employment

Table 9: Prioritization of Programs and Projects and Selection Criteria

Criteria	Description	Score Proportion (%)
1.The relevance to the development policies and validity	The programs/projects must correspond to the urban development direction or be in consistent with the industry policy and must be a great help to achieving the urban development objective	20
2.Financial viability and economic returns	There is a support of good investment and better rate of return on investment, there must also be social benefit	25
3.Social and political acceptability	The projects must receive support from townspeople and meet townspeople's need and welfare requirement and arose their master sense of responsibility	15
4. Capability to implement	The person in charge of the projects must possess adequate technical and organization capability. The municipal government must have perfect system and structure to direct or assist the implementation of the projects	15
5.Environment implications and effect	The projects must be direct help to the improvement of the urban environment and must be help to the enhancement of the municipal government's capability of control and management of the impact that the projects have on the urban environment	25

Table 10: List of Prioritized Programs /Projects

Project	Criteria					Score	Ranking
	1	2	3	4	5		
1. Reform of manufacturing with Hi-new tech	10	8	9	8	7	8.3	7
2.Adjustment and reform of the old industry zone in Tiexi District	8	8	8	7	9	8.1	9
3.Industrialization of Hi-new tech	10	10	10	8	8	9.2	1
4.Manpower resource and service Development	10	8	9	9	5	8.2	8
5.Leading zone of modern agriculture	10	7	9	7	7	7.9	11
6.Demonstration zone of standardization agriculture	8	6	9	6	5	6.6	20
7.Community service	6	5	10	8	8	7.2	18
8.Development of tourist resource	8	9	8	9	8	8.4	6
9.Construction of Hunnan new city zone	10	9	9	8	9	9.1	2
10.Urban communication project	7	7	9	6	6	6.9	19
11.Urban gas project	7	9	10	8	10	8.9	3
12.Urban heating project	8	9	10	6	10	8.8	4
13.Resident house	9	8	10	9	8	8.7	5
14.New water source project	9	6	9	6	6	6.5	21
15.Sewage treatment	6	5	10	9	9	7.6	14
16.Solid garbage treatment	6	5	10	9	10	7.8	12
17.Purification of urban air	5	5	10	8	10	7.5	15
18.Urban landscape and greening	5	8	10	6	9	7.7	13
19.Ecologic environment protection zone	5	6	9	6	10	7.3	17
20.City wide band information network	9	10	8	9	2	7.4	16
21.Administration management and supervision	10	5	9	9	8	8.0	10
22.Comprehensive urban plan	10	2	5	8	2	5.0	24
23.Sustained urban planning study	5	2	8	8	10	6.4	22
24.Investment system and environment study	8	2	8	6	2	4.7	26
25.State-owned-enterprises management system reform	8	8	8	5	2	6.1	23
26.Program for expanding employment	8	2	10	5	2	4.9	25

Table 11: Top-Priority and Major Projects Profile

City Name: Shenyang City

Item No. 01

Project Title	Science/technology/agriculture garden construction project		
Sector	Science/technology/agriculture	Project Duration	2001~2003
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Setting up new science/technology agriculture garden		
Target Beneficiaries	Shenyang Nanyang Group Co./Local farmers		
Project Description	82 mu new aquiculture poultry demonstration site; pollution-free vegetables, soilless culture natural lawn, nontoxic mushroom demonstration area (500 mu). Agriculture management information center and the future science/ technology fruit display hall occupying 382 mu land to be newly built; new melon and fruit greenhouse (100 mu) and subsidiary facilities to be built		
Expected Benefits/ outputs	Annual output value 120 million yuan, annual profit 11million yuan		
Important Assumptions/ conditions for the project	Land, water source		
Linkages/other sector link-ages	Shenyang City Agriculture Management Bureau /Shenyang City Science/technology Commission		
Estimated Investment Requirement	50 million yuan		
Implementing Agency/Body	Shenyang Nanyang Group Company		
Relevant Agencies to coordinated	Shenyang City Planning Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input checked="" type="checkbox"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation	Mainly Private Sector's Investment		
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input type="radio"/> Apply policy of PPP (Pollute-Pays-Principle) <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others		

Project Title	Xin Chengzi District High Quality Nursery Stock Gallery Project		
Sector	Agriculture/Forestry	Project Duration	2001-2005
Project Location	Raiyuan Street, Shenyang City		
Type of Project	<input checked="" type="radio"/> F/S Study or Survey <input checked="" type="radio"/> Packaged Program <input type="checkbox"/> Development Project <input checked="" type="radio"/> Technical Upgrading Project <input checked="" type="radio"/> Institutional Building <input checked="" type="radio"/> Others		
Summary of Objectives	Build nursery stock farm		
Target Beneficiaries	Xin Chengzi District/Local Peasants		
Project Description	Build nursery stock farms of 20,185 mu, drill 71 wells and build 22 roads.		
Expected Benefits/ outputs	Annual output value: RMB□ 30million, Annual Profit: RMB□ 13million.		
Important Assumptions/ conditions for the project	Land and water source		
Linkages/other sector linkages	Shenyang City Agricultural Administrative Bureau/Xin Chengzi District Government.		
Estimated Investment Requirement	Total invest. RMB□ 31.20million		
Implementing Agency/Body	Xin Chengzi District Agricultural Administrative Bureau		
Relevant Agencies to coordinated	Shenyang City Town and Country Construction Committee, Shenyang City Science & Technology Committee.		
Provision Scheme for Fund Procurement	<input type="checkbox"/> Local Government <input type="checkbox"/> Private Sector Involvement <input checked="" type="radio"/> Central Government <input checked="" type="radio"/> Specially Organized Fund <input checked="" type="radio"/> International Assistance Funds <input type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="checkbox"/> Central government involvement <input checked="" type="radio"/> International Financial Assistance (Loan) <input type="checkbox"/> Initiatives of Local Government Units <input checked="" type="radio"/> Private Sector Participation in Funding <input checked="" type="radio"/> Institutional Arrangement at Local Level <input type="checkbox"/> Maximum Utilization of Local Technologies <input checked="" type="radio"/> Special Financial Build up at Local Level <input checked="" type="radio"/> International Technologies Assistance <input checked="" type="radio"/> Others		
Private Sector Participation	Major investment from private sector		
Environmental Measures	Technical Measures: <input checked="" type="radio"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="radio"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="radio"/> Jointly Implement Environmental Engineering Work <input type="checkbox"/> Examine the Project Location Site and/or Scale <input type="checkbox"/> Examine Availability of Alternative Resource Use <input type="checkbox"/> Under take Protection Measures for Flora and Fauna <input type="checkbox"/> Jointly Implement Social and Community Development Activities <input checked="" type="radio"/> Others	Administrative Measures: <input type="checkbox"/> Adjust the Land Use Zoning <input checked="" type="radio"/> Coordinate with Environmental Sector Guidelines <input type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="radio"/> Apply Policy of PPP (Polluter-Pays- Principle) <input type="checkbox"/> Train Personnel of the Project On Management <input type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="radio"/> Promote Public Relation for Environment Awareness <input checked="" type="radio"/> Others	

Project Title	Forestry Industry Technology Development Demonstration Base Construction Project		
Sector	Agriculture/Forestry	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	New nursery gardens totaling 200 hectare to be set up, demonstration forestry occupying 20000 hectare to be planted		
Target Beneficiaries	Shenyang City General Forestry Technology Promotion Station/Local Residents		
Project Description	Super short period, rotation & fast growing industry material timber, special nursery garden 200 hectares, demonstration plantation 20000 hectares, timber 10 million stems of plants		
Expected Benefits/ outputs	Annual output value 303.50 million yuan, annual profit 194.02 million yuan		
Important Assumptions/ conditions for the project	Land, water source		
Linkages/other sector link-ages	Shenyang City Forestry Management Bureau		
Estimated Investment Requirement	175 million yuan		
Implementing Agency/Body	Shenyang City General Forestry Technology Promotion Station		
Relevant Agencies to co-ordinated	Shenyang City Planning Commission, Shenyang City Urban/Rural Construction Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input checked="" type="checkbox"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input type="checkbox"/> Apply policy of PPP (Pollute-Pays-Principle) <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="checkbox"/> Promote Public Relation for Environment Awareness <input type="checkbox"/> Others	

Project Title		Shenyang Nanophase Materials Garden Project	
Sector	Industry/Electronic	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To set up Research Center, Product Production Base		
Target Beneficiaries	Chinese Academy of Sciences Shenyang Metal Research Institute		
Project Description	Shenyang Nanophase Materials Garden is to be situated at Shenyang Hi-new Technology Industry Development Zone, occupying the land of 1500mu. Mainly to set up National Nanophase Materials Research Center, Enterprise incubator and Nano-non-metal material, Nano-metal material, Nano-preparation and Nano-device industry production base, which is Nanophase Material Industrialization Base integrating the scientific research, development and production into one. It is predicted that the project investment return period is 5~8 years. House for production is 2000m ² and the product development equipment and assembly and test line required..		
Expected Benefits/ outputs	Annual output value 500 million yuan, annual profit 50 million yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Hi-new Technology Development Zone Management Commission /Shenyang City Science/technology Commission		
Estimated Investment Requirement	28.91 million yuan		
Implementing Agency/Body	Chinese Academy of Sciences Shenyang Metal Research Institute		
Relevant Agencies to co-ordinated			
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input checked="" type="checkbox"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation	Most Part of Investment		
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input type="radio"/> Apply policy of PPP (Pollute-Pays-Principle) <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support		

	■ Jointly Implement Social and Community Development Activities ⌚ Others	⌚ Promote Public Relation for Environment Awareness ⌚ Others
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Project Title	Shenyang ATM Industry Garden Project		
	Industry/Electronic	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Annual output value 10 billion yuan		
Target Beneficiaries	Chinese Academy of Science Shenyang Automation Research Institute		
Project Description	The area is 1million m ² . During the first phase, from 2001 to the end of 2003, it is predicted to complete the construction of the robot industry area, the scientific device and equipment industry area and the infrastructure facilities inside the garden, and partial supporting facilities. During the second phase, from 2004 to the end of 2006, it is predicted to complete the construction of the digitalization equipment industry area, apparatus and instruments (based on the general line on site) industry area, overseas garden, and new AMT fruit industrialization innovation area.		
Expected Benefits/ outputs	Annual output value 10 billion yuan, annual profit 2.5 billion yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Hi-new Technology Development Zone Management Commission /Shenyang City Science/technology Commission		
Estimated Investment Requirement	144.58 million yuan		
Implementing Agency/Body	Chinese Academy of Sciences Shenyang Metal Research Institute		
Relevant Agencies to coordinated			
Provision Scheme for Fund Procurement	<input type="radio"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input checked="" type="checkbox"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input checked="" type="checkbox"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input checked="" type="checkbox"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Apply policy of PPP (Pollute-Pays-Principle) <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	China North East 863 Software Garden		
Sector	Industry/Electronic	Project Duration	2001~2005
Project Location	Inside Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input checked="" type="checkbox"/> Development Project <input type="radio"/> Institutional Building <input type="radio"/> Packaged Program <input type="radio"/> Technical Upgrading Project <input type="radio"/> Others		
Summary of Objectives	Annual output value 10 billion yuan		
Target Beneficiaries	Shenyang City Hi-tech Pioneering Center		
Project Description	This project will borrow the successful experience in the construction of the software area and the specialized software incubator from home and abroad, depend on the advantage condition of Shenyang and put the emphases on the supporting the academic leading persons of the national 863 software subject and the software enterprises created and set up by them by creating and setting up the first class pioneering environment for the software enterprises to bring about a rapid merchandizing and industrialization of their scientific research fruit and bring along a great many medium and small sized enterprises engaging the advanced software technology development to grow and develop rapidly.		
Expected Benefits/ outputs	Annual output value 10 billion yuan, annual profit 25 billion yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Hi-new Technology Development Zone Management Commission /Shenyang City Science/technology Commission		
Estimated Investment Requirement	144.58 million yuan		
Implementing Agency/Body	Shenyang City Hi-tech Pioneering Center		
Relevant Agencies to co-ordinate			
Provision Scheme for Fund Procurement	<input type="radio"/> Local Government <input type="radio"/> Central Government <input checked="" type="checkbox"/> International Assistance Funds <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Specially Organized Fund <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Special Financial Build up at Local Level <input type="radio"/> Others <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Private Sector Participation in Funding <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> International Technologies Assistance		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Apply policy of PPP (Pollute-Pays-Principle) <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

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Project Title	Shenyang Shenhua Tiancheng Biologic Technology Garden		
Sector	Industry/Electronic	Project Duration	2001~2007
Project Location	Inside Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Annual output value 10 billion yuan		
Target Beneficiaries	Liaoning Tiancheng Biologic Engineering Co., Ltd.		
Project Description	It is planed to occupy the land 80-hectare to construct Scientific Research Center, Flora Plantation Area, Fauna Breeding Area, Production Area, Comprehensive Business Area and Living Service Area and total construction area is 86000m ² . The main construction project is the plant yearly producing 1000 ton cellulose, 600 billion units SOD, 4 million pieces hepatitis B vaccine, 5 million pieces influenza vaccine, 10 million pieces antibiotic peptide. It is predicted that the output value of the garden will be 2.1 billion yuan in 2005, 5.2 billion yuan in 2007. It is predicted that the investment return period is 5 years.		
Expected Benefits/ outputs	Annual output value 5.2 billion yuan, annual profit 1.0 billion yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Hi-new Technology Development Zone Management Commission /Shenyang City Science/technology Commission		
Estimated Investment Requirement	84 million yuan		
Implementing Agency/Body	Liaoning Tiancheng Biologic Engineering Co., Ltd.		
Relevant Agencies to coordinated			
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input type="radio"/> Central Government <input checked="" type="checkbox"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input checked="" type="checkbox"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input checked="" type="checkbox"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Apply policy of PPP (Pollute-Pays-Principle) <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Environmental Protection Automobile Manufacturing Project		
Sector	Industry/Automobile	Project Duration	2001-2005
Project Location	Shenyang City proper		
Type of Project	<input type="checkbox"/> F/S Study or Survey <input type="checkbox"/> Development Project <input checked="" type="checkbox"/> Institutional Building <input checked="" type="checkbox"/> Packaged Program <input checked="" type="checkbox"/> Technical Upgrading Project <input checked="" type="checkbox"/> Others		
Summary of Objectives	Manufacture electrically operated automobile		
Target Beneficiaries	Shenyang Golden Cup Automobile Group Corporation		
Project Description	Build an electrically operated automobile factory with an annual output of 100,000 automobiles.		
Expected Benefits/ outputs	Annual output value: RMB 2 billion Annual Profit: RMB 700 million		
Important Assumptions/ conditions for the project	Import Storage Battery Technology		
Linkages/other sector linkages	Shenyang City Economy & Trade Commission/ Shenyang City Planning Commission		
Estimated Investment Requirement	RMB 500 million		
Implementing Agency/Body	Shenyang Golden Cup Automobile Group Corporation		
Relevant Agencies to coordinate	Shenyang City Foreign Economics and Trade Commission, Shenyang City Environmental Protection Authority		
Provision Scheme for Fund Procurement	<input type="checkbox"/> Local Government <input checked="" type="checkbox"/> Central Government <input checked="" type="checkbox"/> International Assistance Funds <input type="checkbox"/> Private Sector Involvement <input checked="" type="checkbox"/> Specially Organized Fund <input type="checkbox"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input type="checkbox"/> Initiatives of Local Government Units <input checked="" type="checkbox"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> Others <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Private Sector Participation in Funding <input type="checkbox"/> Maximum Utilization of Local Technologies <input checked="" type="checkbox"/> International Technologies Assistance		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input type="checkbox"/> Examine the Project Location Site and/or Scale <input type="checkbox"/> Examine Availability of Alternative Resource Use <input type="checkbox"/> Undertake Protection Measures for Flora and Fauna <input type="checkbox"/> Jointly Implement Social and Community Development Activities <input checked="" type="checkbox"/> Others	Administrative Measures: <input type="checkbox"/> Adjust the Land Use Zoning <input checked="" type="checkbox"/> Coordinate with Environmental Sector Guidelines <input type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Apply Policy of PPP (Polluter-Pays- Principle) <input type="checkbox"/> Train Personnel of the Project On Management <input type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input checked="" type="checkbox"/> Others	

Project Title		Complete Set of Great Sewage Treatment Technical Equipment Project	
Sector	Industry/Machinery	Project Duration	2001~2003
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input type="radio"/> Development Project <input checked="" type="checkbox"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Producing Complete sets of great sewage treatment technical equipment		
Target Beneficiaries	Shenyang Machinery/Electric Equipment Group Co.		
Project Description	To make the said engineering project be capable of producing the urban sanitary waste and industry sewage treatment equipment totaling 25000~30000 ton		
Expected Benefits/ outputs	Annual output value 350 million yuan, annual profit 40 million yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Economy & Trade Commission / Shenyang City Science/technology Commission		
Estimated Investment Requirement	500 million yuan		
Implementing Agency/Body	Shenyang Machinery/Electric Equipment Group Co.		
Relevant Agencies to coordinated	Shenyang City Planning Commission, Shenyang City Environment Protection Management Bureau		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input type="radio"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input type="radio"/> Undertake Periodical Environmental Monitoring <input type="radio"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Industrial Robot and Major Equipment Industrialization Project		
Sector	Industry/Machinery	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input type="radio"/> Development Project <input checked="" type="checkbox"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Producing robots and their complete sets of equipment		
Target Beneficiaries	Xinsong Robot Automation Co., Ltd. by Shares		
Project Description	Expanding the scale on the original base to shape up the capacity of producing 800 sets robots and their complete sets of equipment yearly		
Expected Benefits/ outputs	Annual output value 1.0 billion yuan, annual profit 250 million yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Economy & Trade Commission / Shenyang City Science/technology Commission		
Estimated Investment Requirement	230 million yuan		
Implementing Agency/Body	Xinsong Robot Automation Co., Ltd. by Shares		
Relevant Agencies to coordinated	Shenyang City Planning Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input type="radio"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input type="radio"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input type="radio"/> Undertake Periodical Environmental Monitoring <input type="radio"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input type="radio"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Low Temperature Nuclear Heating Industrialization Project		
Sector	Industry/Machinery	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input type="radio"/> Development Project <input checked="" type="checkbox"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Low Temperature Nuclear Heating Equipment Industrialization		
Target Beneficiaries	Machinery/Processing Cooperation Group		
Project Description	Accordingly constructing and upgrading the pressure vessel, safety vessel and in-pile matching parts to realize the industrialization of low temperature nuclear heating equipment		
Expected Benefits/ outputs	Annual output value 300 million yuan, annual profit 140 million yuan		
Important Assumptions/ conditions for the project	Construction of low temperature nuclear heating project		
Linkages/other sector link-ages	Shenyang City Machinery Industry Management Bureau		
Estimated Investment Requirement	200 million yuan		
Implementing Agency/Body			
Relevant Agencies to coordinated	Low Temperature Nuclear Heating Equipment Industrialization		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input type="radio"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input type="radio"/> Undertake Periodical Environmental Monitoring <input type="radio"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input type="radio"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	New Type of Fuel Battery Construction Project		
Sector	Industry/General Use	Project Duration	2001~2005
Project Location	Inside Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input checked="" type="radio"/> Development Project <input type="radio"/> Institutional Building <input type="radio"/> Packaged Program <input type="radio"/> Technical Upgrading Project <input type="radio"/> Others		
Summary of Objectives	Producing new type of fuel battery		
Target Beneficiaries	Shenyang Battery Works		
Project Description	Building of 8000m ² , comprehensive building of 2000m ² to be built, the production technology and partial critical equipment to be imported.		
Expected Benefits/ outputs	Annual output value 300 million yuan, annual profit 150 million yuan		
Important Assumptions/ conditions for the project	The production technology and partial critical equipment to be imported		
Linkages/other sector link-ages	Shenyang City Economy & Trade Commission		
Estimated Investment Requirement	150 million yuan		
Implementing Agency/Body	Shenyang Battery Works		
Relevant Agencies to coordinated	Shenyang City Planning Commission, Shenyang City Science & Technology Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="checkbox"/> Central Government <input checked="" type="checkbox"/> International Assistance Funds <input type="checkbox"/> Private Sector Involvement <input type="checkbox"/> Specially Organized Fund <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="checkbox"/> Central government involvement <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="checkbox"/> Institutional Arrangement at Local Level <input type="checkbox"/> Special Financial Build up at Local Level <input type="checkbox"/> Others <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input type="checkbox"/> Private Sector Participation in Funding <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input checked="" type="checkbox"/> International Technologies Assistance		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="checkbox"/> Undertake Protection Measures Flora and Fauna <input type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="checkbox"/> Others	Administrative Measures: <input type="checkbox"/> Adjust the Land Use Zoning <input type="checkbox"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="checkbox"/> Others	

Project Title	Natural Compound Engineering Research and Production Base Project		
Sector	Industry/Chemical Industry	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="radio"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Producing natural medicine		
Target Beneficiaries	Shenyang Xiehe Group Co./Public		
Project Description	To screen and purify the active ingredient of the natural medicine by utilizing modern biologic technology and complete the monomeric compound of 50 kinds (Chinese medicine standard, the purity is greater than 98%) and rational natural medicine of three kinds under category 1 within 3 years		
Expected Benefits/ outputs	Annual output value 1 billion yuan, annual profit 200 million yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Economy & Trade Commission		
Estimated Investment Requirement	100 million yuan		
Implementing Agency/Body	Shenyang Xiehe Group Company		
Relevant Agencies to coordinated	Shenyang City Medicine Monitoring Bureau, Shenyang City Planning Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input type="checkbox"/> Central Government <input type="checkbox"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="checkbox"/> Central government involvement <input type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input checked="" type="checkbox"/> Private Sector Participation in Funding <input type="checkbox"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="checkbox"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="checkbox"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="checkbox"/> Undertake Protection Measures Flora and Fauna <input type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="checkbox"/> Others	Administrative Measures: <input type="checkbox"/> Adjust the Land Use Zoning <input type="checkbox"/> Coordinate with Environmental Sector Guidelines <input type="checkbox"/> Undertake Periodical Environmental Monitoring <input type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="checkbox"/> Promote Public Relation for Environment Awareness <input type="checkbox"/> Others	

Project Title	High-Effect & Pollution-free DK-1 Biologic Insect Killer Project		
Sector	Industry/Chemical Industry	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To produce biologic insect killer		
Target Beneficiaries	Shenyang Dongda Dicke Chemical Industry Medicine Co., Ltd./Farmers		
Project Description	Producing 56000 ton biologic insect killer, the land of 16000 m ² to be taken over for use, the building of 6000m ² to be built, one biologic pesticide production line to be set up		
Expected Benefits/ outputs	Annual output value 890 million yuan, annual profit 246.10 million yuan		
Important Assumptions/ conditions for the project	Land		
Linkages/other sector link-ages	Shenyang City Chemical Industry Management Bureau		
Estimated Investment Requirement	78.90 million yuan		
Implementing Agency/Body	Shenyang Nanyang Group Company		
Relevant Agencies to coordinated	Shenyang City Economy & Trade Commission, Shenyang City Planning Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input checked="" type="checkbox"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input type="radio"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Human Erythropoietin (EPO) Project		
Sector	Industry/Medical	Project Duration	2001~2001
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To produce human erythropoietin (EPO)		
Target Beneficiaries	Shenyang Sansheng Pharmaceutical Co., Ltd. by Shares		
Project Description	Producing 3 million pieces human erythropoietin a year. The Biologic pharmaceuticals shop meeting GMP standard to be built		
Expected Benefits/ outputs	Annual output value 270 million yuan, annual profit 117.13 million yuan		
Important Assumptions/ conditions for the project	Land		
Linkages/other sector link-ages	Shenyang City Economy & Trade Commission /		
Estimated Investment Requirement	78.90 million yuan		
Implementing Agency/Body	Shenyang Sansheng Pharmaceutical Co., Ltd. by Shares		
Relevant Agencies to coordinated	Shenyang City Drug Monitoring Bureau/ Shenyang City Planning Commission		
Provision Scheme for Fund Procurement	<input type="radio"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input type="radio"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation	Main Investment from Private Sector		
Environmental Measures	Technical Measures: <input type="radio"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Rebuilding of Sewage Drainage System Using the Loan of the Phase Four From World Bank		
Sector	Urban Construction/ Environmental Protection	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To rebuild the sewage drainage system		
Target Beneficiaries	Townpeople		
Project Description	The sewage treatment plant and rebuilding of sewage drainage system		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Urban/Rural Construction Commission/Shenyang City Environment Protection Management Bureau		
Estimated Investment Requirement	2 billion yuan		
Implementing Agency/Body	Shenyang City Urban Construction Engineering Management Bureau		
Relevant Agencies to coordinated	Shenyang City Planning Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input type="radio"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title		Urban Water Drain Facilities Modification Works	
Sector	Urban Construction/ Water Drain	Project Duration	2001~2005
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Modifying the old water drain system and building new water drain pump stations and pipeline and network		
Target Beneficiaries	Local residents		
Project Description	Modifying the drain system in Congshan District, three pump stations in the north and rebuilding Xiao Beiguan District, the drain system in Wu Ai District, improving the Jing Qin pump station, Hun He river cut-off system and rebuilding Xi He river system		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Urban Construction Engineering Bureau		
Estimated Investment Requirement	412.20 million yuan		
Implementing Agency/Body	Shenyang City Water Drain Department		
Relevant Agencies to coordinated	Shenyang City Urban/Rural Construction Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input type="radio"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input type="radio"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Hunnan Heating System Engineering		
Sector	Urban Construction/Heating Power	Project Duration	2001-2004
Project Location	Taiyuan Street, Shenyang City		
Type of Project	<input type="checkbox"/> F/S Study or Survey <input type="checkbox"/> Packaged Program <input type="checkbox"/> Development Project <input type="checkbox"/> Technical Upgrading Project <input type="checkbox"/> Institutional Building <input type="checkbox"/> Others		
Summary of Objectives	Decrease air pollution by central heating		
Target Beneficiaries	Local residents		
Project Description	Build central heating boiler room, a set of 29MW hot-water boiler, 3sets of 58 MW hot-water boilers.		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project	Land		
Linkages/other sector linkages	Shenyang City High & New Technology Development Zone Administrative Committee/Shenyang City House Property Administrative Bureau		
Estimated Investment Requirement	Total invest. RMB 180 million		
Implementing Agency/Body	Shenyang City The Third Heating System Corporation		
Relevant Agencies to coordinated	Shenyang City Planning Commission		
Provision Scheme for Fund Procurement	<input type="checkbox"/> Local Government <input type="checkbox"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input checked="" type="checkbox"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input type="checkbox"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input type="checkbox"/> Initiatives of Local Government Units <input checked="" type="checkbox"/> Private Sector Participation in Funding <input checked="" type="checkbox"/> Institutional Arrangement at Local Level <input type="checkbox"/> Maximum Utilization of Local Technologies <input checked="" type="checkbox"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input checked="" type="checkbox"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input type="checkbox"/> Examine the Project Location Site and/or Scale <input type="checkbox"/> Examine Availability of Alternative Resource Use <input type="checkbox"/> Undertake Protection Measures for Flora and Fauna <input type="checkbox"/> Jointly Implement Social and Community Development Activities <input checked="" type="checkbox"/> Others	Administrative Measures: <input type="checkbox"/> Adjust the Land Use Zoning <input checked="" type="checkbox"/> Coordinate with Environmental Sector Guidelines <input type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Apply Policy of PPP (Polluter-Pays- Principle) <input type="checkbox"/> Train Personnel of the Project On Management <input type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input checked="" type="checkbox"/> Others	

Project Title		Central Heating Project in Tai Yuan Street District	
Sector	Urban Construction/ Heating	Project Duration	2001~2002
Project Location	Tai Yuan Street, Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Central heating, improving heating quality and reducing air pollution		
Target Beneficiaries	Shenyang townspeople, local residents		
Project Description	New boiler house for central heating to be built, with four boilers installed, corresponding heating pipelines and network to be built and renovated with 3 hot water boilers 58MW, 1 hot water boiler 29MW, total area to be heated is 60 million m ²		
Expected Benefits/ outputs	Annual sale revenue 110 million yuan, annual profit 34.06 million yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City House Property Management Bureau		
Estimated Investment Requirement	240 million yuan		
Implementing Agency/Body	Shenyang City the Third Heat Power & Heating Company		
Relevant Agencies to co-ordinated	Shenyang City Planning Commission/ Shenyang City Urban/Rural Construction Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others		

Project Title		Dangerous Waste Incinerating Demonstration Project	
Sector	Urban Construction/ Environment Protection	Project Duration	2001~2002
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To conduct pollution-free treatment of the dangerous waste using Hi-new technology		
Target Beneficiaries	Shenyang City Environment Science/Research Institute/ Townspeople		
Project Description	One new dangerous waste incinerating demonstration plant capable of incinerating highly toxic waste such as chlorobenzene, chemical waste and pesticide to be built and two incinerating production lines to be built		
Expected Benefits/ outputs	Once it is put into production, 15000 tons wastes can be incinerated		
Important Assumptions/ conditions for the project	Land		
Linkages/other sector link-ages	Shenyang City Environment Protection Management Bureau		
Estimated Investment Requirement	130 million yuan		
Implementing Agency/Body	Shenyang City Environment Science Research Institute		
Relevant Agencies to coordinated	Shenyang City Planning Commission, Shenyang City Urban/Rural Construction Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input type="radio"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input type="radio"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others		

Project Title	Lao Huchong Hygiene Landfill Treatment Site Project		
Sector	Urban Construction/ Environment Protection	Project Duration	2001~2005
Project Location	Lao Huchong, Dongling District, Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To realize the safe treatment of solid domestic waste in Shenyang City		
Target Beneficiaries	Shenyang people		
Project Description	Phase one: the landfill capacity is 750 tons /day, phase two: the treatment capacity is 1500 tons/day, service life: 40 years		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project	Land		
Linkages/other sector link-ages	Shenyang City Urban Construction Project Management Bureau		
Estimated Investment Re-quirement	200 million yuan		
Implementing Agency/Body	Shenyang Environment/ Hygiene Department		
Relevant Agencies to coordinated	Shenyang City Planning Commission, Shenyang City Urban/Rural Construc-tion Commission		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input type="radio"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input type="radio"/> Others		
Necessary Input/ Ar-rangement	<input checked="" type="checkbox"/> Central government involvement <input type="radio"/> International Financial As-sistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental En-gineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input type="radio"/> Examine Availability of Alternative Re-source Use <input checked="" type="checkbox"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Commu-nity Development Activities <input type="radio"/> Others Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environ-mental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Resi-dents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others		

Project Title	North-west Waste Incinerating Treatment Plant		
Sector	Urban Construction/ Environment Protection	Project Duration	2001~2002
Project Location	In Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To conduct pollution-free treatment of the solid waste and domestic waste		
Target Beneficiaries	Sanjiu Ruiwei Waste Incinerating Treatment Co., Ltd./Townspeople		
Project Description	North-west of Shenyang Domestic Waste Incinerating Plant to be built		
Expected Benefits/ outputs	Building the north-west domestic waste incinerating treatment plant capable of treating waste of 950 tons		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Urban/Rural Construction Commission, Shenyang City Planning Commission		
Estimated Investment Requirement	320 million yuan		
Implementing Agency/Body	Sanjiu Ruiwei Garbage Incinerating Treatment Co., Ltd.		
Relevant Agencies to coordinated	Shenyang City Urban/Rural Construction Project Management Bureau		
Provision Scheme for Fund Procurement	<input type="radio"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input type="radio"/> Central Government <input checked="" type="checkbox"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input checked="" type="checkbox"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation	Mainly Private Sector's Investment		
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input type="radio"/> Examine the Project Location Site and/or Scale <input type="radio"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Lingkong Sewage Treatment Plant		
Sector	Urban Construction/ Environmental Protection	Project Duration	2001~2002
Project Location	Shenyang City Yuhong District		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Accomplish the harmless treatment of the city sewage in the southern part of Shenyang		
Target Beneficiaries	Shenyang citizens		
Project Description	Construct the sewage treatment facilities, the plant for the equipment installation which can treat 200,000 m ³ of sewage each day.		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Urban/Township Construction Committee/Shenyang City Planning Committee		
Estimated Investment Requirement	429.44 million yuan		
Implementing Agency/Body	Southern Sewage Treatment Co., Ltd.		
Relevant Agencies to coordinated	Shenyang City Urban Construction Engineering Administration Bureau		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input checked="" type="checkbox"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input type="radio"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input type="radio"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Low Temperature Nuclear Heat-Supply		
Sector	Urban Construction/Heat Power	Project Duration	2001~2003
Project Location	Shenyang City Human New District		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Accomplish the concentrated heat supply of Shenyang Hunnan District		
Target Beneficiaries	Shenyang Huitian Heat & Power Co., Ltd./citizens		
Project Description	Construct a low-temperature nuclear heat supply station and the necessary heat net with an installation of 400 MW to solve the heating requirement of Hunnan District		
Expected Benefits/ outputs	Annual sales income of 300 million yuan, annual profit of 120 million yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Planning Committee		
Estimated Investment Requirement	1327 million yuan		
Implementing Agency/Body	Shenyang Huitian Heat & Power Co., Ltd.		
Relevant Agencies to coordinated	Shenyang City Urban/Township Construction Committee		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input checked="" type="checkbox"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora <input type="radio"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others		

Project Title	Shenyang Road Net Afforestation		
Sector	Urban Construction/ Afforestation	Project Duration	2001~2005
Project Location	Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Beautify the urban environment conditions and reduce noise		
Target Beneficiaries	Shenyang citizens		
Project Description	Mainly accomplish systematic afforestation of Ring Road No.2 and Ring Road No.3 and the nearby road net.		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project	Land		
Linkages/other sector link-ages	Shenyang City Urban/Township Construction Administration Committee		
Estimated Investment Requirement	2700 million yuan		
Implementing Agency/Body	Shenyang City Urban Construction Engineering Bureau/Shenyang City Forest Industry Administration Bureau		
Relevant Agencies to coordinated	Shenyang City Planning Committee		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input type="radio"/> Central Government <input checked="" type="checkbox"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input checked="" type="checkbox"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input type="radio"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input type="radio"/> Examine Availability of Alternative Resource Use <input checked="" type="checkbox"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input type="radio"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	The General Renovation and the Comprehensive Necessary Facilities of Tiexi Industrial District		
Sector	Urban Construction/ Industry	Project Duration	2001~2005
Project Location	Shenyang City Tiexi District		
Type of Project	<input type="checkbox"/> F/S Study or Survey <input type="checkbox"/> Packaged Program <input type="checkbox"/> Development Project <input type="checkbox"/> Technical Upgrading Project <input type="checkbox"/> Institutional Building <input type="checkbox"/> Others		
Summary of Objectives	Provide fine development conditions for the enterprises in Tiexi Industrial District		
Target Beneficiaries	The industrial enterprises/residents in Tiexi District		
Project Description	Construct a distribution station for construction materials exchange, production and living articles distribution; commercial, drinking service facilities and public facilities in Tiexi Industrial District.		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Planning Committee/Tiexi Industrial District Renovation Office		
Estimated Investment Requirement	6500 million yuan		
Implementing Agency/Body	Tiexi District Government		
Relevant Agencies to coordinated	Shenyang City Urban/Township Construction Committee, Shenyang City Land Planning and Administration Bureau, Shenyang City Economic & Trade Committee.		
Provision Scheme for Fund Procurement	<input type="checkbox"/> Local Government <input type="checkbox"/> Private Sector Involvement <input type="checkbox"/> Central Government <input type="checkbox"/> Specially Organized Fund <input type="checkbox"/> International Assistance Funds <input type="checkbox"/> Others		
Necessary Input/ Arrangement	<input type="checkbox"/> Central government involvement <input type="checkbox"/> International Financial Assistance (Loan) <input type="checkbox"/> Initiatives of Local Government Units <input type="checkbox"/> Private Sector Participation in Funding <input type="checkbox"/> Institutional Arrangement at Local Level <input type="checkbox"/> Maximum Utilization of Local Technologies <input type="checkbox"/> Special Financial Build up at Local Level <input type="checkbox"/> International Technologies Assistance <input type="checkbox"/> Others		
Private Sector Participation	Partial Investment		
Environmental Measures	Technical Measures: <input type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input type="checkbox"/> Jointly Implement Environmental Engineering Work <input type="checkbox"/> Examine the Project Location Site and/or Scale <input type="checkbox"/> Examine Availability of Alternative Resource Use <input type="checkbox"/> Undertake Protection Measures Flora and Fauna <input type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="checkbox"/> Others	Administrative Measures: <input type="checkbox"/> Adjust the Land Use Zoning <input type="checkbox"/> Coordinate with Environmental Sector Guidelines <input type="checkbox"/> Undertake Periodical Environmental Monitoring <input type="checkbox"/> Pollute-Pays-Principle <input type="checkbox"/> Train Personnel of the Project On Management <input type="checkbox"/> Develop Consensus with Residents and receive their Support <input type="checkbox"/> Promote Public Relation for Environment Awareness <input type="checkbox"/> Others	

Project Title	Urban Track Communications		
Sector	Urban Construction/ Communications	Project Duration	2001~2005
Project Location	Inside Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	The initial construction of the underground track communications system in Shenyang City to relief the present intense traffic		
Target Beneficiaries	Shenyang Track Communications Co., Ltd./Citizens/Travelers		
Project Description	Total length of 22.2 km, including 7.66 km of overhead road and 14.54km of underground road, a total of 17 stations are to be set up.		
Expected Benefits/ outputs	A total length of 22.2km and 17 stations to be set up.		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Planning Committee/Shenyang City Urban/Township Construction Committee.		
Estimated Investment Requirement	6510 million yuan		
Implementing Agency/Body	Shenyang Track Communications Co., Ltd.		
Relevant Agencies to coordinated	Shenyang City Land Planning & Administration Bureau/Shenyang City Urban Construction Engineering Administration Bureau.		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input type="radio"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Comprehensive Renovation of Information Network		
Sector	Urban Construction/ Communication Shenyang City	Project Duration	2001~2005
Project Location	Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Carry out net-widening, construct information platform, develop telephone net and long-distance call business		
Target Beneficiaries	Shenyang Telecom Branch Company/Citizens/Various organs		
Project Description	Construction of wide-band net business platform, multi-medium information network platform, application platform of public information comprehensive service system, widening of telephone net, construction of 20,000m ² of information mansion and long-distance switchboard building etc.		
Expected Benefits/ outputs	Annual sales income of 3400million yuan, annual profit of 800 million yuan		
Important Assumptions/ conditions for the project			
Linkages/other sector link- ages	Liaoning Province Telecom. Company		
Estimated Investment Re- quirement	6800 million yuan		
Implementing Agency/Body	Shenyang Telecom. Company		
Relevant Agencies to coordinated	Shenyang City Planning Committee/Shenyang City Information Industry Of- fice		
Provision Scheme for Fund Procurement	<input type="radio"/> Local Government <input type="radio"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input type="radio"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Ar- rangement	<input type="radio"/> Central government involvement <input type="radio"/> International Financial As- <input checked="" type="checkbox"/> Initiatives of Local Government Units sistance (Loan) <input type="radio"/> Institutional Arrangement at Local Level <input type="radio"/> Private Sector Participation <input type="radio"/> Special Financial Build up at Local Level in Funding <input type="radio"/> Others <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> International Technologies Assistance		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input type="radio"/> Jointly Implement Environmental En- gineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Com- munity Development Activities <input type="radio"/> Others	Administrative Measures: <input type="radio"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input type="radio"/> Undertake Periodical Environ- mental Monitoring <input type="radio"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Resi- dents and receive their Support <input type="radio"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Comprehensive Construction of Hunnan Infrastructure		
Sector	Urban Construction/ Comprehensive Construction	Project Duration	2001~2005
Project Location	Shenyang City Hunnan New District		
Type of Project	<input type="radio"/> F/S Study or Survey <input checked="" type="checkbox"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	To construct Hunnan New District into a high-standard Shenyang new District		
Target Beneficiaries	Residents in Hunnan New District		
Project Description	Development Construction of Hunnan infrastructure, mainly to construct roads, drainage, water-supply, power-supply, communications, gas-pipeline net, heat-supply, dykes and dams, sludge removal and other engineerings.		
Expected Benefits/ outputs			
Important Assumptions/ conditions for the project	District dividing, land		
Linkages/other sector link-ages	Shenyang City Government		
Estimated Investment Requirement	11,000 million yuan		
Implementing Agency/Body	Shenyang City Hunhe District Administration Committee		
Relevant Agencies to coordinated	Shenyang City Planning Committee/Shenyang City Urban Township Construction Administration Committee/Shenyang City Land Planning and Administration Bureau/Shenyang City Urban Construction Engineering Administration Bureau/Shenyang City Water Power Administration Bureau.		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input checked="" type="checkbox"/> Private Sector Involvement <input checked="" type="checkbox"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input checked="" type="checkbox"/> Others		
Necessary Input/ Arrangement	<input checked="" type="checkbox"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input checked="" type="checkbox"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input checked="" type="checkbox"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation	Partial investment		
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input checked="" type="checkbox"/> Install Pollution Protection Facilities/ Equipment <input checked="" type="checkbox"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input checked="" type="checkbox"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others	Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input checked="" type="checkbox"/> Coordinate with Environmental Sector Guidelines <input checked="" type="checkbox"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others	

Project Title	Construction engineering of Dahuofang Water Resources		
Sector	City Urban Construction/ Water Supply	Project Duration	2001~2005
Project Location	Inside Shenyang City		
Type of Project	<input type="radio"/> F/S Study or Survey <input type="radio"/> Packaged Program <input checked="" type="checkbox"/> Development Project <input type="radio"/> Technical Upgrading Project <input type="radio"/> Institutional Building <input type="radio"/> Others		
Summary of Objectives	Partial relief of the Water-shortage Problem of Shenyang City		
Target Beneficiaries	The citizens/Various organs		
Project Description	Water resources engineering and the necessary pipeline net works		
Expected Benefits/ outputs	An increase of 100,000 tons of water supply/day		
Important Assumptions/ conditions for the project			
Linkages/other sector link-ages	Shenyang City Running Water Controlling Company		
Estimated Investment Requirement	100 million yuan		
Implementing Agency/Body	Shenyang City Water Resources Construction Complex		
Relevant Agencies to coordinated	Shenyang City Urban Township Construction Administrative Committee /Shenyang City Land Planning & Administrative Bureau		
Provision Scheme for Fund Procurement	<input checked="" type="checkbox"/> Local Government <input type="radio"/> Private Sector Involvement <input type="radio"/> Central Government <input type="radio"/> Specially Organized Fund <input checked="" type="checkbox"/> International Assistance Funds <input type="radio"/> Others		
Necessary Input/ Arrangement	<input type="radio"/> Central government involvement <input checked="" type="checkbox"/> International Financial Assistance (Loan) <input checked="" type="checkbox"/> Initiatives of Local Government Units <input type="radio"/> Private Sector Participation in Funding <input type="radio"/> Institutional Arrangement at Local Level <input checked="" type="checkbox"/> Maximum Utilization of Local Technologies <input type="radio"/> Special Financial Build up at Local Level <input type="radio"/> International Technologies Assistance <input type="radio"/> Others		
Private Sector Participation			
Environmental Measures	Technical Measures: <input checked="" type="checkbox"/> Conduct In-depth Environmental and Social Impact Studies <input type="radio"/> Install Pollution Protection Facilities/ Equipment <input type="radio"/> Jointly Implement Environmental Engineering Work <input checked="" type="checkbox"/> Examine the Project Location Site and/or Scale <input checked="" type="checkbox"/> Examine Availability of Alternative Resource Use <input type="radio"/> Undertake Protection Measures Flora and Fauna <input checked="" type="checkbox"/> Jointly Implement Social and Community Development Activities <input type="radio"/> Others		Administrative Measures: <input checked="" type="checkbox"/> Adjust the Land Use Zoning <input type="radio"/> Coordinate with Environmental Sector Guidelines <input type="radio"/> Undertake Periodical Environmental Monitoring <input checked="" type="checkbox"/> Pollute-Pays-Principle <input checked="" type="checkbox"/> Train Personnel of the Project On Management <input checked="" type="checkbox"/> Develop Consensus with Residents and receive their Support <input checked="" type="checkbox"/> Promote Public Relation for Environment Awareness <input type="radio"/> Others

Table 12 Forecast Sheet of Investment Requirement of Programs/Projects

Unit: a hundred million yuan

Programs/Projects	Invest.	Annual investment Requirement																				Source of Main Funds
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1. Upgrading manufacturing with Hi-new technology	1960	50	60	70	80	100	80	90	100	110	120	90	100	110	110	110	100	120	120	120	120	Loan/local funds/foreign funds
2. Adjustment and reform of old industry zone in Tiexi District	91	10	10	15	15	15	10	5	5	4	2											Loan/local funds/foreign funds
3.Industrialization of Hi-new technology	1565	5	10	20	30	40	30	40	50	60	80	60	70	80	90	100	120	140	60	80	200	Loan/local funds/foreign funds
4. Manpower resource and service development	908	8	20	22	24	26	30	33	37	42	46	50	55	60	65	70	60	60	60	65	65	Loan/Local funds
5. Leading zone of modern agriculture	242	5	10	15	15	20	10	12	14	16	20	10	15	15	15	15	10	10	5	5	5	Loan/Private funds/foreign funds
6. Demonstration zone of standardization agriculture	147	5	8	10	10	10	5	8	10	15	20	5	5	5	5	10	5	5	2	2	2	Loan/Private funds/foreign funds
Projects Under The Category Of Industry Totaling	4913	93	118	152	174	211	165	188	216	227	228	215	245	270	285	305	295	335	347	372	392	
7. Community service	35.3	0.5	0.5	0.6	0.6	0.8	1	1.2	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5	2	2	5	5	5	Local funds
8.Development of tourist re-source	130	10	15	15	20	20	5	8	10	12	15											Loan/local funds/foreign funds
9. Construction of Hunnan new city zone	1440	10	50	60	80	90	00	110	20	130	40	50	60	70	80	90	20	30	40	50	60	Loan/local funds/foreign funds
10.Urban communication projects	445	20	20	25	30	30	30	35	35	35	40	10	15	15	15	20	10	10	10	20	20	Loan/local funds
11.Urban gas project	323.8	3	3.6	4.3	5.2	6.2	7.4	8.9	10.7	12.9	15.4	17	18.7	20.5	22.6	24.8	26.1	27.4	27.4	30.1	31.6	Local funds/Local gov't
12. Urban heating project	29.5	2	2	2.5	2.5	3	3	3.5	3.5	3.5	4											Local funds/Local gov't
13.Residents house	2855	70	77	85	93	102	107	112	124	136	150	155	159	164	169	177	182	188	193	203	209	Loan/Local funds
14. Water source project	103	4	4	4.5	4.5	5	3	3.5	3.5	3.5	3.5	10	12	13	14	15						Loan/local funds/local gov't
15.Sewage treatment	31	3	4	4	4	4	2	2	2	3	3											Local gov't/foreign funds
16.Solid waste treatment	27	1	2.5	2.5	2.5	2.5	2	2	4	4	4											Local gov't/foreign funds
17.Urban air purification	80	2	2	2	3	3	2	2	3	3	3	5	5	5	5	5	6	6	6	6	6	Local gov't/foreign funds
18. Urban landscape & green-ing	43.8	0.8	1	1.5	1.5	2	2	2.5	2.5	2.5	2.5	2	2	2	2	2	3	3	3	3	3	Local gov't
19. Ecological environment protection zone	89	2	2	4	4	5	3	3	5	5	6	4	4	4	5	5	5	5	6	6	6	Local gov't/foreign funds

20. Urban wide-band information transmission network	94	10	8	8	8	5	5	10	10	10	20												Loan/local funds
21. Administration management & supervision	267.4	5.5	6.1	6.7	7	7	7.4	8.1	9	9.8	0.8	12	3.1	4.4	5.9	7.4	9.2	1.1	3.2	5.6	8.1		Local gov't
Projects Under The Category Of Urban Facilities & Management Totaling	5993.8	43.8	97.7	25.6	65.8	85.5	79.8	11.7	43.4	71.4	18.4	66.5	90.3	09.4	330	57.7	73.3	92.5	13.6	48.7	68.7		
22. Comprehensive urban programs	1.3	0.2					0.2					0.4					0.5						Local gov't/ foreign funds
23. Sustained urban program study	0.4	0.4																					Local gov't/ foreign funds
24. Investment system & investment environment study	0.3	0.1					0.1					0.1											Local gov't
25. Reform of state-owned enterprises management system	0.2	0.1					0.1																Local gov't
26. Program for expanding employment	0.6	0.2					0.2					0.1					0.1						Local gov't/ foreign funds
Projects under the category of technical assistance	2.8	1					0.6					0.6					0.6						
Total	9909.6	37.8	15.7	77.6	39.8	96.5	45.4	99.7	59.4	18.4	06.4	82.1	35.3	79.4	615	62.7	68.9	27.5	60.6	20.7	60.7		

Table 13: Measure and Calculation Sheet of Capital Source

Items	Capital	Year (Ten thousand yuan)					Remarks
		2001	2002	2003	2004	2005	
1.Finance capital	110	18	20	22	24	26	
2. Finance loan	479	65	78	94	112	130	
3.Foreign capital	128	21	23	25	28	31	
4.Enterprise self-financed capital	660	108	119	131	144	158	
5.Other capital	303	45	52	59	68	79	
Total	1680	257	292	331	376	424	

Figure 1: Geographic Location Map of Shenyang City



Figure 2: Intercity Communication Chart of Shenyang City



Figure 3: Hypsometric Map of Shenyang City



Figure 4: Plot Plan Map of Shenyang City Administrative Divisions



Figure 5: Statistic Chart of Population and Labor Force of Shenyang City

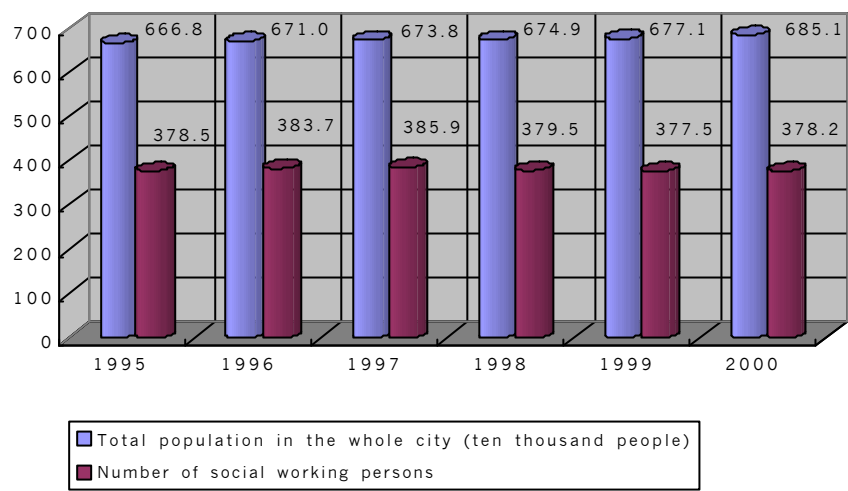


Figure 6: Land Use Plan Map of Shenyang City

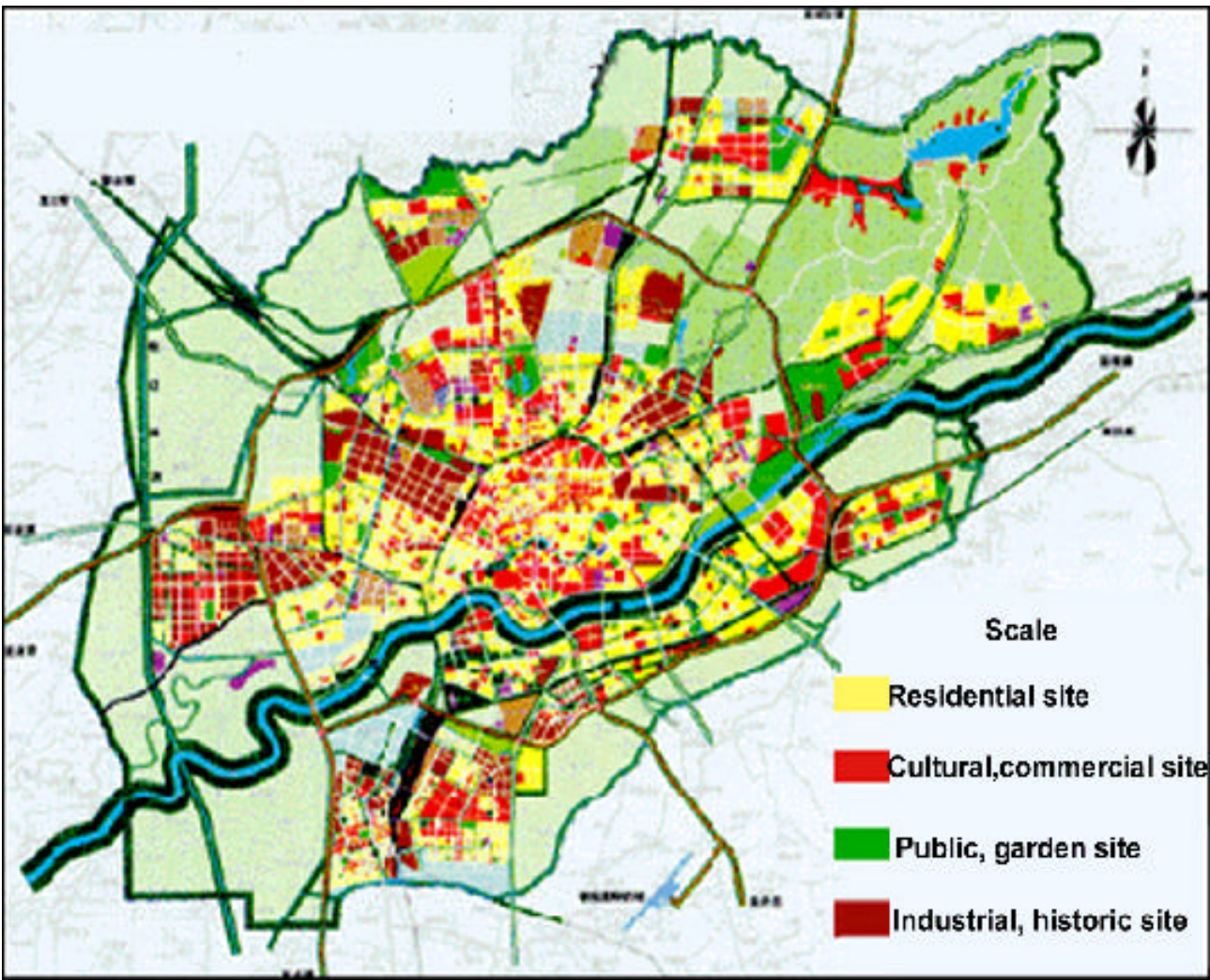


Figure7: Layout of Housing, Household, Education, Health and Municipal Organizations

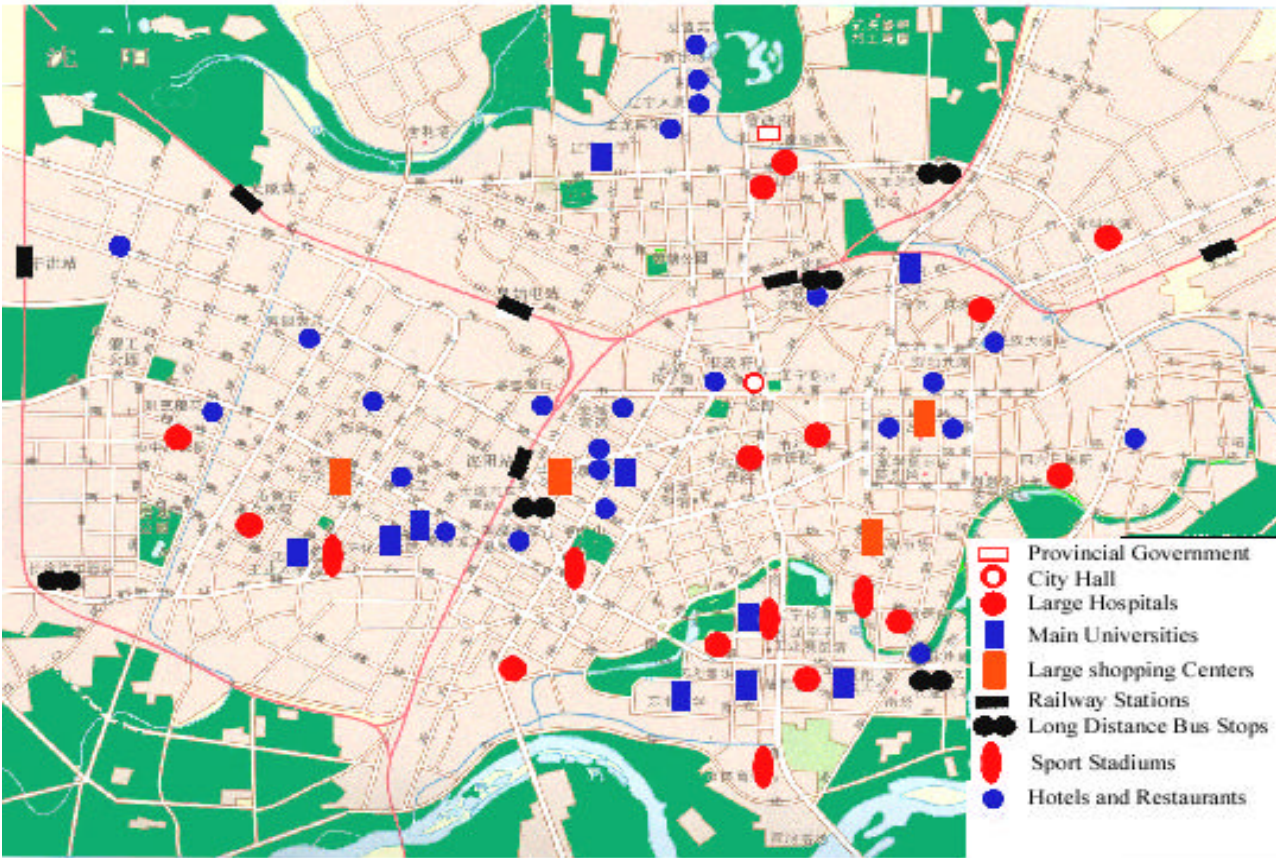


Figure 8: Organization Chart of Municipal Government of Shenyang City

