

Promoting the Development of Caofeidian District Through Interactions Between Port and City, Industry and City, School and City*

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Abstract—From the new industrialization base around Bohai Sea to Caofeidian Petrochemical Industry Base, Caofeidian is the key area for Tangshan City to implement the national strategic policy. However because Caofeidian District is in the new growth stage, it has not yet been able to achieve the strategic key role it should play. This paper introduces the development significance of Caofeidian, describes its current development status, points out the key problems encountered in the current development of Caofeidian through field investigation and analysis, and finally puts forward applicable solutions from macro and micro levels.

Keywords—regional development strategy analysis; Caofeidian; present situation description; policy suggestions

I. INTRODUCTION

Caofeidian, which connects northwest and sea, is at the intersection of "Silk Road Economic Belt" and "twenty-first Century Maritime Silk Road". It is a window for economic cooperation in Northeast Asia. Caofeidian, adjacent to Beijing and Tianjin, is an important link of the "Beijing-Tianjin-Hebei coordinated development" strategy, and also an important pole of the "dual-core" urban development strategy in the downtown and coastal areas of Tangshan City. Caofeidian, as the carrier of the country's major strategy, has brought new opportunities for the development of Tangshan. Vigorously supporting and promoting the development of Caofeidian is the inevitable choice for Tangshan to build a new growth pole and realize the transformation of industrial structure under the pressure of the state to reduce production capacity.

II. PRESENT SITUATION OF CAOFEIDIAN DISTRICT IN TANGSHAN CITY

The Outline of Beijing-Tianjin-Hebei Cooperative Development Planning clearly points out that Caofeidian and

Beijing should build a demonstration zone of coordinated development, which mainly undertakes the tasks of industrial transfer and evacuation of non-capital core functions in Beijing, and enjoy the same policy of public service equalization and urbanization in Beijing-Tianjin metropolitan areas. Caofeidian New Town is listed as the first green ecological demonstration city in China and the first ecological demonstration city in Hebei Province. Caofeidian District is also listed as the first national circular economy demonstration. Caofeidian Comprehensive Bonded Zone is the first comprehensive bonded zone in Hebei Province. At present, Caofeidian's industrial development has begun to take shape, with Nanpu Development Zone, Port Logistics Park, Iron and Steel Power Park, Chemical Industry Park, Equipment Manufacturing Park, Timber Industry Park and other industrial parks. At the same time, with the support of Beijing-Tianjin industrial transfer policy, Caofeidian District has undertaken several major projects such as Shougang and PetroChina LNG, in order to bring the dividend of Beijing-Tianjin-Hebei coordinated development into full play. The development of Caofeidian District has the following advantages.

A. Unique Natural Conditions

Caofeidian harbor is endowed with unique conditions, deep water, wide harbor, wide land, and smooth transportation to the whole world. It has strong industrial support, the largest salt farm in Asia, abundant oil and gas reserves, and the largest installed capacity development zone in Hebei Province. Caofeidian has a beautiful and unique ecological environment, with "unique in the north, rare in the whole country" natural wetland.

B. Preliminary Improvement of Infrastructure

After 15 years of construction, Caofeidian has gradually improved its infrastructure. It has built or built high-speed, 10 national and provincial trunk lines and 5 railways, opened 108 routes and 97 berths, and basically completed the construction of Sand-blowing land and sea-crossing roads. The total installed capacity of the Huarun Caofeidian Power Plant in Caofeidian District is 4.6 million kilowatts. It has the most advanced ultra-supercritical power generation technology in the world.

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C. Overall Support of Government Policies

Tangshan Municipal Government and Caofeidian District Government vigorously practice "building cities according to gardens and promoting production by cities", actively promote the work of "one port and two cities", and actively perform government functions to serve enterprises in the region. To dispatch cadres to each other so as to perfect the normal business docking and greatly promote the construction of "one port, two cities". "Four Zero Five Most" highlights the deep core of "Come to Caofeidian, everything is easy to do", the cadres have a good style of work, and the implementation of "release control uniform" has attracted many investors.

D. The Interactions Between Port and City, Industry and City, School and City Have Foundation

Port city is the product of the organic combination and interactive development of port and city. Port development and urban development have different characteristics in different stages. There are stages of interaction between space and industrial structure. Caofeidian District is at the initial stage of port-city connection. The initial connection between port and city originates from the transit function of port, which results in cargo distribution, population agglomeration and port management. It is the initial medium of port-city connection.

Caofeidian Industrial Park is in the stage of large-scale development and industrial agglomeration because of its huge enterprise capacity, which can accommodate various industries. At present, Tangshan Sanyou Group, Tangshan Sanfu Silicon Industry Co., Ltd., COFCO Caofeidian Refining Sugar Project, Caofeidian Port Ore Terminal Co., Ltd., China and Japan Tangshan Caofeidian Ecological Park Industrial Park, Iron and Steel Power Park, Shougang Project, Equipment Manufacturing Park, Wood Industry Park and other major projects and industrial parks have settled in Caofeidian. They have made important contributions to Caofeidian's economic development and employment.

At the same time, Caofeidian Vocational Education City in Beijing has a scale at the beginning. The institutions of North China University of Technology and Tangshan Vocational and Technical College can provide professional support for the development of industrial parks.

III. PROBLEMS IN THE DEVELOPMENT OF CAOFEIDIAN DISTRICT

Caofeidian District's high foothold, together with its resource advantages and various supports, determines that it has a very good development prospects. However, Caofeidian has been developing for 15 years, and its current situation and expectations are quite different. There are still many problems to be solved in the development process of Caofeidian.

A. Small Population and Unreasonable Spatial Distribution

Population is not only an important support for urban development, but also a key factor to measure the degree of urban development. Caofeidian's population is small at

present, and the reality of population distribution is not in line with the planning. Caofeidian originally planned industrial zones and living areas separated, but the current situation is that all staff live in industrial zones, living areas industry cannot get the proper development, housing vacancy is serious, insufficient domestic demand seriously affects the development of related living industries. Although the Caofeidian Vocational Education City in Beijing was initially large-scale, the phenomenon of vacant campus, insufficient students and other phenomena is still serious, and the support of talents is insufficient. At the same time, because Caofeidian area is too sparse and sparsely populated, the population is too scattered and gathered, and there is no certain scale of population gathering living area. Therefore, the population problem is the most important issue in the development of Caofeidian District.

B. The Level of Industrial Agglomeration Is Low and the Industrial Structure Is Relatively Backward

Tangshan City is facing enormous pressure from the state to decompose its production capacity. The development of Caofeidian District bears the important task of optimizing and upgrading the industrial results of Tangshan City. However, the industrial structure in the region has not been optimized and upgraded, and the proportion of secondary industry is still too high, while the proportion of tertiary industry of high-tech and service industry is relatively low. Beijing's decentralized industries cannot fully support Caofeidian's industrial agglomeration demand. The low level of information technology is not in line with the requirements of the development of emerging industries and high-tech industries. Passage economy has obvious characteristics. Logistics parks are mostly low value-added functions, while high value-added services are carried by external areas, resulting in relatively small output value scale of the park and limited contribution to local economic benefits. Port transport variety and transport business is single, mainly for energy and ore commodities, container business accounts for a small proportion, and only for domestic routes. Lack of competitive large-scale modern service industry enterprises, the internal structure of service industry is unreasonable. The comparative advantage of manufacturing industry has not been brought into full play. The mixture of non-core business and core business makes the R&D with high added value in the industrial chain not receive due attention and hinders the development of advanced manufacturing industry. Therefore, how to accelerate industrial agglomeration and promote industrial structure upgrading and adjustment is the key issue related to the future development of Caofeidian District.

C. The Problem of Government Debt Is Serious and the Rate of Return on Investment Is Low

Great government support is an important driving force to promote industrial development, but due to the slow formation of industrial agglomeration, government investment is difficult to recover, debt is high, it is difficult to maintain other government expenditures, resulting in large-scale fiscal deficit, affecting the follow-up development.

D. Infrastructure Is Not Perfect Enough to Guarantee the Lives of Residents

Urban development must require a certain degree of infrastructure as a support. Caofeidian port rear collection and distribution channel capacity is insufficient, resulting in inadequate development space. The construction of residents' living infrastructure is imperfect, and problems such as the use of water, electricity and inadequate heating occur from time to time. Traffic in the area is inconvenient, and public transport cannot develop as it should. Therefore, improving infrastructure construction is an important issue to promote the development of Caofeidian District.

IV. MEASURES TO PROMOTE THE DEVELOPMENT OF CAOFEIDIAN DISTRICT

A. From the Macro Level

To promote Caofeidian's high-quality leapfrog development in an all-round way, it is necessary to optimize its structure, promote the comprehensive integration of port, industry and urban development, and play a demonstration role in the construction of a new industrialization base in the Bohai Rim region. First, it is necessary to scientifically formulate plans for modern industries, port development and coastal new towns, and strengthen the strategic guiding role of planning. Secondly, it is necessary to upgrade the traditional leading industries to middle and high-end, expand strategic emerging industries, seize the commanding heights of development, highlight the improvement of industrial agglomeration, and establish a modern industrial system. Thirdly, it is necessary to persist in promoting projects and revitalizing industrial areas, constantly increase investment promotion and attract investment, deepen cooperation with the world's top 500 and well-known central enterprises and private enterprises, aim at key areas such as Beijing-Tianjin, Yangtze River Delta and Pearl River Delta, persist in recruiting, strengthening and updating, attract a number of good projects to accelerate landing in Caofeidian, and promote the gathering and matching optimization of human resources, social capital, policies and institutional mechanisms.

To promote Caofeidian's high-quality leapfrog development in an all-round way, it is necessary to take advantage of it. It is needed to the coordinated development strategy of Beijing, Tianjin and Hebei, actively undertake Beijing's industrial transfer, fully support the development and construction of Xiongan New Area, and play a gathering role in the construction of an important fulcrum of the capital economic circle. One is to strengthen the docking with scientific research institutions in Beijing-Tianjin and Xiongan New Area, to realize the research and development of Xiongan in Beijing-Tianjin and the manufacture of Caofeidian, and to create an advanced manufacturing industry and "Craftsman Valley" in China. Second, it is necessary to accelerate the transfer of industries between Beijing and Tianjin, make good use of the platform of Beijing-Hebei (Caofeidian) co-development demonstration zone and Bintang (Caofeidian) demonstration industrial park, and effectively gather more high-quality Beijing-Tianjin projects. Thirdly, it is necessary to build healthy resorts in

Beijing, Tianjin and Hebei, and promote the integration of industry, education and urban development.

To comprehensively promote Caofeidian's high-quality leaping development, it is necessary to adhere to open innovation and reform breakthrough, and deeply integrate into the "one belt and one road" construction. First, it is necessary to promote the innovation of ideas, ideas, systems and policies. The construction of "Five Cities" should be carried out to build a city with new development ideas, a city with modern industrial agglomeration, a city with integrated development of port production, a city with ecological livability and quality, and a city with innovation-driven leadership. Second, it is necessary to speed up the pace of "going out" with superior production capacity, reform key areas and links, and expand industries. Third, it is necessary to adhere to talent support, stimulate vitality, optimize talent policy, widely attract high-end high-tech talents, and build industrial development plateau with talent plateau.

To promote Caofeidian's high-quality leapfrog development in an all-round way, it is necessary to vigorously develop coastal tourism. Taking the tourism industry as an important grasp to promote high-quality development and the key support for structural adjustment, Caofeidian will be built into a modern coastal new city with openness, innovation, inclusiveness, livability, industry and tourism. First, it is necessary to full use of the coastline resources and highlight the coastal characteristics; second, it is necessary to rely on rich cultural and tourism resources and unique geographical advantages, high station planning, clear brand-led integration of literature and tourism new ideas; third, new breakthroughs should be made in coastal tourism characteristics and main scenic spots, development and operation mechanism, transportation and tourism supporting facilities, tourism propaganda planning and promotion, so as to create a new global tourism pattern.

B. From the Micro Level

First, following the reform form of supply side, grasping the opportunities of Beijing-Tianjin-Tianjin coordinated development, and making full use of existing advantages: interaction between port and city, industry and city, school and city can be realized, and form a good pattern of port and city combination, industry and city integration, school and city integration.

Depending on the superior location conditions of Caofeidian Port, it is necessary to develop tourism, logistics, fisheries, aquaculture and other industries to improve the efficiency of port utilization. Controlling the pollution problem and making the green port become the business card of Caofeidian Port. Through the development of ports, Caofeidian's domestic and international visibility will be enhanced, supply and demand will be stimulated, and the development of Caofeidian will be promoted, so as to achieve the effect of promoting the city by ports.

Second, integrating industrial park resources and optimizing industrial structure: It is needed to concentrate our efforts on supporting superior industries, such as logistics and core manufacturing industries, to improve the

utilization of resources. It is necessary to re-plan industrial parks to accelerate the speed of industrial agglomeration. It is needed to develop industries with high level of information technology and science and technology vigorously, and introduce advanced enterprises in high-tech industries at home and abroad to set up branches in Caofeidian District.

Third, implementing oriented enrollment plan to promote the integration of schools and cities: To cooperate with universities and implement directional enrollment is not only to train professional talents for the development of Caofeidian District, but also to attract foreign population and expand the population scale. It is necessary to make key colleges and universities as city business cards, for example, Building Campus City landscape, developing tourism, improving students' recognition of the city, and achieving mutual publicity effect in the process of enhancing the visibility of both sides.

Forth, perfecting infrastructure construction and improving residents' lives: according to the level of urban development, it is necessary to improve infrastructure construction constantly, improve the quality of life, enhance the recognition of residents, and avoid population loss.

V. CONCLUSION

Caofeidian District has superior natural and social conditions, carrying many national and regional development strategies. The construction of Caofeidian is of great significance both at the national level and at the regional level. Although the development of Caofeidian now has some problems in population, industry, debt and infrastructure, these problems can be solved by the government, schools and investors, and will not have a serious impact on the long-term development of Caofeidian. Therefore, it is imperative for Caofeidian District Government to recognize the current situation and problems and make timely countermeasures. With the solution of the problem, the development of Caofeidian District will be smoother and smoother, and its due role will also be played.

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