Problems and Countermeasures of building world-class port group in Jing-Jin-Ji

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Abstract. With the development of Jing-Jin-Ji coordinated development and transportation integration development, it is the general trend to create a world-class port group in Jing-Jin-Ji and to coordinate the development of ports. Jin-Ji Port Group is close in location, which hinterland is crossed, and which coastline resources are closely connected. It has unique advantages in realizing the integration of port groups. However, there are a series of problems in the construction of Jing-Jin-Ji Port Integration, such as serious homogenization of port construction, lagging behind the process of port integration and so on. Therefore, in view of the problems existing in the process of building Jing-Jin-Ji world-class port group, this paper puts forward relevant countermeasures and suggestions.

1. Connotation and characteristics of world-class port group

1.1. Energy Structure and Consumption Status in China

(1) Petroleum

Urban agglomeration is the highest form of spatial organization in the mature stage of urban development. Urban agglomeration refers to the urban group with more than one mega city as the core, at least three large cities as the constituent unit, relying on the developed transportation and communication infrastructure network to form a compact spatial organization, close economic ties, and ultimately achieve a high degree of urban integration and integration. World class urban agglomeration is a large-scale urban agglomeration with international influence as the center, urban agglomeration as the basic organizational form, gathering domestic and international economic and social factors, occupying a dominant position in international economic and social development and having world influence.

Referring to the concept of world-class urban agglomeration, this paper holds that world-class port group refers to a group of international ports with clear positioning, reasonable structure, unified management, efficient coordination, international influence and first-class competitiveness in a certain administrative region.

World class port group should have the following conditions:
- There are many ports in the area;
- Having one or more international ports;
- There is a clear division of labor and close social and economic ties between the ports in the region, which form an organic whole and have overall advantages;
- The overall scale is large;
- The hinterland of port group is the core area of national economy.
2. Present situation and problems of Jin-Ji Port Group

2.1. Present situation

There are a long coastline and numerous ports in the Bohai Rim region. There are 640 km coastlines in Tianjin and Hebei alone, including 487 km in Hebei and 153 km in Tianjin. There are not only Tianjin, Qinhuangdao, Tangshan, Huanghua, Cangzhou and many other natural ports, but also thousands of square kilometers of unused land. Jin-Ji coastal port group is located in the coastal junction of Hebei and Tianjin. Its service objects cover the East, West and central areas. It has a vast territory, diverse resources, and a huge population, about 240 million. It covers an area of about 2.5 million square kilometers, more than a quarter of the total land area, spanning more than a dozen provinces and cities. The economy of this region plays an important role in China's domestic trade and foreign trade.

Four world-class ports have been formed along the coastline of Tianjin and Hebei. In 2019, the throughput of Tianjin port, Tangshan port, Huanghua port and Qinhuangdao Port will reach 490 million tons, 660 million tons, 290 million tons and 220 million tons respectively, of which the throughput of Tianjin port and Tangshan port ranks the ninth and third in the world respectively, and the container throughput of Tianjin Port ranks ninth in the world. The four major ports of Tianjin and Hebei are close in distance, and the sharing potential of regional waterway, anchorage, pilot and other public resources is great. Jing-Jin-Ji and Northwest China are the common hinterland. The four coal mining ports in northern China are all concentrated in Jing-Ji Port, accounting for 92% of the nine ports in the north. At the same time, it is also the main port for metal ore import and unloading, among which Tangshan port ranks first in China. The overall scale of Jin-Ji Port accounts for nearly one fifth of the total throughput of the country, and the container throughput accounts for nearly one tenth of the national total.

As the core of the world-class port group in Jing-Jin-Ji, Tianjin port is the only comprehensive port in Jing-Jin-Ji region and an important container hub port in northern China. It is the core strategic resource of Jing-Jin-Ji region and the core carrier of international shipping and international logistics center in the north. By the end of 2019, the total cargo throughput of Tianjin port is 490 million tons, ranking third in the north, seventh in China and ninth in the world; container throughput is 17.3 million TEU, ranking second in the north, sixth in the country and ninth in the world. At present, the level and specialization of Tianjin port have been greatly improved, and the port space has been continuously expanded. Through the layout space of inland port, it has been extended to 14 inland provinces and autonomous regions; With the increasingly perfect port functions, we are actively building a logistics chain with the port as the core. High end industries such as shipping service and finance have started to develop. The contribution rate of leading industries such as shipping, logistics, leasing and trade settlement to the regional economy has also increased significantly. As the two wings of the world-class port group in Jing-Jin-Ji, Hebei Port has its own advantages. Qinhuangdao port is China's largest energy export port, especially with large coal output. Tangshan port is mainly composed of coal, metal ore and steel. Huanghua port is the sea port of the second largest road for transporting coal from the west to the East, and is a large coal export port.

2.2. Problems faced

(1) As the core port, Tianjin Port still has a gap compared with the advanced ports at home and abroad.

From the perspective of cargo structure, the total volume of containers is relatively small, accounting for less than 40% of the total throughput of the port, which is far behind the ports of Shanghai, Shenzhen and Singapore. In terms of logistics services, the two-way logistics network between sea and land is not perfect, the flight density of sea routes and the number of international trunk lines are less than those of Shanghai, Ningbo, Shenzhen and other ports, and the scale of land to sea rail combined transport and land bridge transportation is small. In terms of trade services, it focuses on loading and unloading operations, and lacks the development of trade attributes of various types of goods. The scale of new trade formats such as bonded trade, offshore trade, exhibition trading, and bonded delivery of futures is small. In terms of shipping services, although about 30000 ships can
be attracted to the port each year through port loading and unloading, the development level of high-end shipping functions is relatively low. In terms of active cooperation with shipping insurance, shipping finance, shipping brokers and other companies, it lags behind port enterprises such as Shanghai port group and Ningbo Zhoushan port group.

(2) Homogeneous construction causes great waste of port resources.

The nature, type and function of Jin-Ji Port Group are further converging, and the homogenization problem is aggravating, which leads to the problems of repeated construction, excessive capacity and waste of shoreline resources. Each port of Jing-Jin-Ji Port Group aims at building a comprehensive port. For a single port, the diversification of operation avoids the risk brought by the single function operation of the port. However, from the perspective of resource allocation of the whole Jing-Jin-Ji Port Group, the homogeneous positioning will lead to the ports competing to add new ports and terminals. Due to the limitation of cargo transportation volume, such repeated construction and investment will inevitably lead to a large amount of idle capacity and serious waste of resources. As a matter of fact, there is a situation of "insufficient food" in all ports, and the port capacity is surplus.

(3) The hinterland of the port overlaps and overlaps, and the competition is becoming increasingly fierce.

Economic hinterland is an important service object and source of goods for the port. The development of economic hinterland affects the development of port economy. The service and radiation scope of Tianjin port is mainly in Beijing, Tianjin, North China and Northwest China, among which Tianjin, Beijing, Hebei and Shanxi are its direct economic hinterland. The direct economic hinterland of Tangshan port is Tangshan, and the indirect economic hinterland covers Hebei, Beijing, Shanxi, Ningxia, Inner Mongolia and Shanxi. The economic hinterland of Qinhuangdao port and Huanghua Port mainly covers Beijing, Tianjin, Hebei, Inner Mongolia, Shanxi and Shaanxi. It can be seen that the economic hinterlands of Tianjin and Hebei ports overlap in a wide range, and the cross phenomenon is very serious. Under the circumstances of rapid economic development and strong demand for energy and bulk commodities, moderate competition is conducive to accelerating the development and improvement of each port, and a good relationship of competition and complementarity is formed among industries. Once the economy goes down, there will be excess capacity and "insufficient food", which will inevitably lead to the competition between the ports and the hinterland. The price means will attract customers and form vicious competition, which will lead to internal friction in the industry.

(4) Without the guidance of policy interests, it is difficult to form coordinated development.

Jing-Jin-Ji development plan, especially the port coordinated development plan, has been put forward for many years, but no clear and effective policy measures have been formed. At the same time, the lack of common interest relationship between Jin-Ji port groups has formed a situation of each calculating and fighting on its own. Therefore, for many years, the integration of Jin-Ji Port Group has only stopped on paper and oral, and no substantive operation has been made.

(5) The development of port management system lags behind the development of port integration.

Under the current financial system, the different administrative subordination of the Jing-Jin-Ji Port Group has led to the difficult situation of coordination between Tianjin port and Hebei. At the same time, the current management system of Hebei Province also limits the effective coordination and professional division of labor among "three ports and four districts". After the port was devolved to the local government, the local government took the initiative to develop the port, but it also formed the regional solidification of the port and the situation of "vassal separatism", which was not conducive to the cross regional flow and integration of port resources and capital. In recent years, the situation of local separatism is becoming more and more serious. Therefore, in some provinces and regions, in order to integrate the port resources within the province and optimize the resource allocation, they began to explore the implementation of cross regional integration of port resources at the regional or provincial level to optimize the resource allocation. However, due to the lack of effective means, the effect of these resource integration needs to be tested.
3. Countermeasure
The measures to form a world-class port group in Jing-Jin-Ji and realize coordinated development are as follows:

3.1. Strengthen Tianjin port, the "core" port.
As the "core" in the port group of Beijing, Tianjin and Hebei, Tianjin Port has the important engine function of leading and promoting the development of port cluster. This position and function can not be weakened and changed at any time. It is necessary to take the lead in building a world class modernized port and lay a foundation for building a world-class port cluster. The planning and construction should focus on the optimization of port layout and function, create a port economic development belt, and enlarge the driving role of port economic engine; The north, middle and south port clusters will be built, the northern group will be the symbol area of the north international shipping core area, the central group will be the port industry cluster area, and the Southern Group will be the world-class chemical industry base and the docking area of xiong'an new area; Strengthen the functional linkage of each port area and create a specialized port area with intensive development of goods distribution; We will promote the multi-point integration of port industry and city, and create a multi-point integration pattern in which the functions of the port and city are organically integrated, suitable for business, tourism and living. Accelerate the building of international shipping hub, further expand the container route network, vigorously develop sea rail intermodal transport, improve the level of port interconnection, explore the construction of free trade port, build foreign trade container trunk port, domestic trade container hub port, northern commodity automobile roll on roll transport hub port, national energy and raw materials main transit base, and create regional maritime gateway and sea port of xiong'an new area.

3.2. Jin-Ji Port should make clear its function orientation, give full play to its own advantages, and form a benign competition pattern.
In view of the convergence of Jin-Ji ports in terms of location and hinterland, it is inevitable that the two places will cross in terms of supply and market in the process of port development. Disordered competition and local protectionism have seriously restricted the development of port economy in both places. To create a world-class port group in Jing-Jin-Ji, the premise is the integration of port planning and design. It requires a high station and scientific overall planning of Tianjin Hebei Port development plan. Each port should highlight the characteristics and key points, break the traditional cooperation deadlock, and give full play to the dislocation advantage, division of labor and cooperation, and complementary advantages. In order to further improve the overall competitive strength of Jin-Ji Port Group and provide better service for Jing-Jin-Ji collaborative strategy, it is suggested that in the process of Jin-Ji port cooperation, the promotion of port group should pay attention to resource sharing and improve resource utilization efficiency, and avoid the formation of monopoly operation pattern. At the same time, we should encourage the application of new technology, adjust the port capacity layout, make up for the short board, realize sustainable development, integrate port business with financial services and Internet, and improve the service function of supply chain, so as to truly form Jin-Ji Port Group with world influence.

3.3. Strengthen communication and coordination mechanism, and coordinate natural resources and public resources.
Jin-Ji Port Group includes the interests between Tianjin and Hebei, the interests of Hebei provinces and cities, the interests of port enterprises, and even the interests of the community where the port is located and the interests between the ports. We can learn from the experience of European seaport management and set up a unified specialized organization for construction, coordination and management. In terms of technology application, system management, market development and resource allocation, all ports should be coordinated and developed simultaneously. At the same time,
under the guidance of the leading group, we should actively promote the construction of the navigation channel in order to avoid the waste of resources.

3.4. Improve the scope of cooperation among enterprises and form a community of interests.

In order to realize the coordinated development of ports, we must have the support of common interests. Jin-Ji ports need to expand cooperation areas, especially close investment cooperation, and jointly invest in the construction, operation and development of ports. In this way, the overall competitiveness of Jin-Ji Port Group can be improved, and the disordered competition and internal friction caused by geographical proximity can be effectively avoided. The cooperation experience of Tianjin Port Group, Hebei Port Group and Tangshan port group is summarized. The cooperation in the fields of wharf and inland dry port is strengthened, and the resource sharing mechanism of dry port is established, so as to realize the nearby launching of containers and jointly promote the development of container transportation in Tianjin Hebei Coastal ports. One step is to coordinate the sharing of container source and route resources to improve the competitiveness of regional trunk ports. Relying on the coastal container route network of Tianjin and Hebei, the construction of the north international shipping center is focused on the foreign trade container transportation, and the direct ocean shipping network of container is gradually formed; Hebei Coastal Ports focus on the development of domestic trade containers, actively expand container domestic trade and ocean direct routes, promote the foreign trade routes of Tianjin port to connect with Hebei coastal ports, and realize the nearby launching of hinterland containers. Taking advantage of their respective routes, we should carry out transshipment and intermodal transportation of goods, and vigorously promote water to water container transportation, so as to form a "two-way interchange" of container routes between Jin-Ji ports.

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