

China-Pakistan Economic Corridor Logistics System Construction Analysis under “The Belt and Road” Initiative

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Abstract— Logistics is an important economic development trend at home and abroad, which plays an important role in optimizing regional resource allocation and improving regional competitiveness. In this paper, we propose regional logistics system on the basis of the belt and road that is adapted to the international trade development, mainly including the regional logistics infrastructure, logistics companies, regional logistics demand, regional logistics and regional logistics management information platform five subsystems. Finally, we put forward some suggestions about how to establish and improve our logistics system.

Index Terms— the belt and road, China-Pakistan economic corridor, regional logistics system.

I. INTRODUCTION

A. Research background

The belt and road means "the silk road economic belt" and "the 21st century maritime silk road." "The belt and road" are major strategy to optimize macro-spatial economic structure in the new normal period of China's economy that demonstrates the strategic concept of "five in one". It involves more than 60 countries and regions in Europe, Asia and Africa, and in China, including five provinces in the northwest, four provinces in the southwest and five provinces in the east. This strategy is mainly based on the current China's situation that foreign trade and economic development is developing at a relatively fast pace with frequent economic and trade activities, which through the integration of various activities, such as infrastructure, energy development, investment and trade to meet the adjustment of the industrial structure of the frontier countries for their own economic system construction and infrastructure construction. In brief, "the belt and road" strategy as a win-win development strategy which make our country foreign trade frequency continuously rising, related to foreign trade industry types such as electricity and cross-border logistics industry is faced with unprecedented opportunities for development. significance, To successfully implement the belt and road strategy, we must establish a sound international logistics system. The construction of logistics system under

the background of the belt and road is of important practical which has a high synergistic value to the implementation of China's foreign economic and trade strategy. Besides, in the background of the belt and road, building a logistics system will inject new dynamic and impetus into China. However, at present, there are many problems and improvements in the international logistics system. So, it is important to build a complete and systematic logistics system.

B. Research significance

The China-Pakistan economic corridor (C-pec) is one of the six economic corridors of the belt and road, which is 3,000km long, starting from Kashgar to Gwadar port in Pakistan. The C-pec connects the "silk road economic belt" and the "21st century maritime silk road", which is the key hub of the north-south silk road. In addition, it is a trade corridor, including roads, railways, oil and gas and cable channels, and an important component of the belt and road.

The C-pec is of great significance to China's development. First of all, the C-pec is the joint effort of China and Pakistan to solve major problems of domestic political and economic reform. Through the C-pec, we can reintegrate the resources of the two countries, promote the rapid economic development of the region, and fundamentally guarantee the long-term stability of the region.

Secondly, the C-pec can serve as a model for China to explore new models of regional economic cooperation in Asia. It is also the flagship project and model project of the belt and road initiative. The C-pec covers energy, transportation infrastructure, industrial parks, agriculture, finance and tourism. Countries along the belt and road will face difficulties and problems in the process of construction, which will be involved in the construction of C-pec. It will undoubtedly have a significant demonstration effect that China and Pakistan can overcome difficulties and solve problems through concerted efforts to push forward economic corridor construction. It will undoubtedly have a significant demonstration effect that China and Pakistan can overcome difficulties and solve problems through concerted efforts to promote the economic corridor constructed smoothly, which will enhance confidence in the construction of the belt and road to improve the participation enthusiasm.

C. Literature review

At present, the research on C-pec mainly focuses on the significance of C-pec, transportation foundation, strategic cooperation and risk assessment.

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Research significance

From the point of Pakistan, Sharif said the C-pec was Pakistan's future, which will enable Pakistan to connect with China and central Asian countries and become a hub for regional transport and trade^[1]. Besides, Yan Zhang believes the C-pec will stimulate Pakistan's development potential, promote infrastructure and ease the energy crisis^[2]. From the point of China, Jianmin Yuan believes that the C-pec will become an important channel for Chinese crude oil and other products to import and export, as well as promote economic development in Xinjiang^[3]. What's more, C-pec will promote development and cooperation between the two countries. Muhammad Salim said the goal of the C-pec was to promote cooperation between the Chinese and Pakistani governments and to speed up economic activities along the C-pec^[4]. ChaozheZhang think Pakistan is an important china's pivot to the west and the C-pec will be a key step in building a community of shared future for China and Pakistan in the context of the strategic opportunity of the two countries^[5]. Lijun Chen think that promoting the building of C-pec is not only beneficial to maintaining the energy security, the two countries will also be able to deepen the bilateral economic and trade cooperation, strengthen the interconnectivity, promote the formation of people, logistics, capital and information, strengthen industrial cooperation between the two countries so as to promote the development of regional economic integration^[6].

strategic cooperation and risks.

Huiping Gao assessed the risks from Pakistan and thought that there is no obstacle on political relations between China and Pakistan to build economic corridor. Besides, Pakistan's domestic political situation, economic situation and regional security situation will bring risks to C-pec construction^[7]. Kaiming Yu detailed introduces two major problems of separation of Pakistan in Baluchistan and religious extreme, and put forward that the two sides should cooperate and China should participate in solving problems in Baluchistan province^[8]. Xiaoping Chen proposed that the China-Pakistan trade energy channel faces strategic interest threats from the United States and India, and proposed to strengthen the pearl chain strategy under the construction of Gwadar port and the western vision^[9]. Siling Yang first proposed energy cooperation with India and Iran in china-brazil energy cooperation^[10].

transportation infrastructure.

Yan Dong and Hong Li introduce China and Pakistan's transport links in details and propose the problems in China railway construction and the prospect of China railway construction in regional economic impact of the country^[11]. Xing Xiao describes Pakistan's power supply and demand and balanced relationship in detail, saying that investing in electricity in Pakistan has huge market space and political practical significance^[12]. Yang Yong has analyzed the potential difficulties and threats to the energy import channel of Malacca straits in China. He thought that the advantage of energy cooperation between China and Pakistan based on China-Pakistan relations and Pakistan's unique geographical location, while the disadvantage is the domestic instability^[13].

LanlanGuo and Lei Zhang argue that the cost of the China-Pakistan energy corridor pipeline is more than the cost of shipping, and that it is feasible to build the China-Pakistan pipeline^[14].

However, there is not much researches on the construction of C-pec logistics system. So, in this paper, we will carry out a systematic and comprehensive study of C-pec from the perspective of logistics system. we mainly study how to build and improve the international logistics system and put forward some suggestions.

II. BUILDING A LOGISTICS SYSTEM

The construction of C-pec logistics system mainly refers to the construction of international logistics. International logistics refers to the logistics between different countries. It is relative to domestic logistics that is the extension and expansion of domestic logistics. The construction of international logistics should be considered in several aspects. First of all, international logistic transportation should be considered. At present, the transportation of international logistics is mainly by sea transportation and can also adopt the methods of ocean transportation, air transport, railway transportation or international multimodal combined transportation. Therefore, the construction of international logistics should firstly start from the mode of transportation of international logistics and establish a complete logistics infrastructure, thus saving the logistics transportation cost. Secondly, there is a difference between the international logistics environment and the environment of domestic logistics. Building international logistics system should take into consideration of the national economic environment. Different countries' different economic and technological development levels have caused international logistics to be under the support of different scientific and technological conditions, resulting in the difficulty of "connecting" international logistics. Therefore, the development of international logistics needs to rely on the rapid economic development. In addition, the international logistics system is wide and risky. The risks of international logistics mainly include political risk, economic risk and natural risk. At present, the risks posed by the logistics system of C-pec mainly come from political risk and political instability in Pakistan, which has a certain impact on the construction of international logistics. Finally, international logistics must have the support of international information system. Therefore, we need to build a logistics information platform to ensure timely and accurate sharing of information so that to keep the information in a state of balance. Hence, we will establish a complete logistics system from the above several aspects.

A.China and Pakistan regional logistics facilities system

Logistics facilities mainly include linear facilities, point facilities and related equipment.

Linear facilities

Linear logistics facilities mainly refer to roads, railways, routes and other traffic routes. At present, the trade routes between China and Pakistan are mainly composed of highway channels and air passages. The railway is still under

construction.

The Karakoram highway is the only land trade route between China and Pakistan, built from 1966 to 1979. Through the Karakoram range from Kashgar, Hindu Kush and Pamir, the western end of the Himalayas, Khunjerab Pass through China and Pakistan border crossings, south to northern Pakistan city tower Walcott, total length of 1224 km, one of which 415 kilometers belong to China and 809 kilometers belong to Pakistan. The China-Pakistan highway is the main road to Islamabad and the southern coastal areas, which is of great significance to the economic development of northern Pakistan. At the same time, it is an important part of Pakistan's national highway network, which has important strategic and military significance to its national security.

Therefore, the expansion project of the China-Pakistan highway is one of the important contents of C-pec connectivity. The connection on the road will facilitate trade and investment and cooperation between the two countries. The construction from Sukkul to Multan that is part of highway project from Peshawar to Karachi Pakistan comes into operation, which is 392 km. This will open a new page for China-Pakistan logistics. However, due to the difficulty of engineering technology, the huge amount of engineering will inevitably lead to high cost input, which needs to be viewed from a long-term perspective.

As for the China-Pakistan air corridor, in June 2004, China Southern airlines opened the route of Kashgar to Islamabad, which was cancelled in 2008. In November 2010, the flights from Urumqi to Islamabad increase to three times a week, which can transit Kashgar and make Kashgar to Islamabad by more than four hours flight, reduce to an hour. In August 2013, Pakistan opened passenger and cargo flights, which returned to China once a week. However, the aviation business of Kashgar airport is relatively unitary, and aviation's convenience and rapidity are not brought into play. In the future, the China-Pakistan air corridor is our development direction. Our country will build international airport and export processing zones at Gwadar port and has already proposed land requirements to Baluchistan. The planned Gwadar airport, which covers more than 16.18 million m², will be the largest airport in Pakistan if complete. As for China's railway construction, we are planning to build a 1000 km of railway, including a 750 km long railway from Hector waley Yang to Khunjerab pass and a 250 km railway from Xin Jiang to Khunjerab pass. The construction of China-Pakistan railway will help improve the trade between China and neighboring countries and improve the efficiency of high-speed railway itself. At the same time, we will accelerate the development of business and industry in Kashgar and promote the development of domestic tourism. In addition, once the China-Pakistan railway is completed, the port of Gwadar, on the southern tip of the line, is like a source of water, bursting with vitality.

In the future, the linear facilities of the C-pec need to be improved and the lines need to be further supplemented.

Point facilities

Point facilities mainly refer to logistics center, logistics park and distribution center. The regional logistics system can adopt the basic mode of "logistics park - logistics

center-distribution center" to construct the hierarchical regional logistics node system.

Logistics park is the intersection of logistics lines that closed to ports and airport, which is important to have sufficient space for development. In 2012, Kashgar established the construction project of international logistics park under policy, which is now completed. In fact, Gwadar is located in the throat of the Persian Gulf, which is closest to Afghanistan, central Asian countries, and Xin Jiang. Obviously, Gwadar is also suitable for the construction of logistics park that has location advantage, which can save costs and improve efficiency of logistics.

Logistics center is the main carrier of commercial distribution logistics and processing and distribution logistics, and should be close to large industrial and commercial enterprises.

At present, Gwadar can be designed as a logistics center. In 2002, the first phase of Gwadar port was officially started, which consisted of three berths for multi-purpose wharfs. The project also includes civil engineering, power supply, water supply, fire protection, environmental protection, communication, navigation, loading and unloading, computer aided management and control, etc. The second phase of the project is planned to build 10 ship moorings, including three container terminals. In addition, there will be for the tanker construction two berth port. The government plans to further improve the port postal service through the establishment of the postal automatic sorting system, the development of mail, cash, goods and other transportation services, and the construction of three postal buildings. At present, Gwadar port is committed to building a free trade zone where many domestic and international companies have set up a local commercial exhibition center as their main port of import and export. In addition, the construction of Gwadar airport is under way. Gwadar port construction is of great significance for C-pec, which will implement connection in the land, sea and air.

However, Gwadar was originally a small fishing village in western Pakistan, where don't have formed logistics park. We need to build a logistics center in Gwadar to develop the economy. At the same time, we should make full use of Gwadar's geographical advantage while improving the weak commercial base of Gwadar. Finally, to form a tightly connected logistics system.

The distribution center should be built in the urban area and the development zone so as to facilitate the service industry which is closely related to the life of the people and provide the necessary distribution services.

In a brief, we need to build logistics park and the processing zone in Gwadar, and efforts to build goods distribution center and comprehensive logistics service base, which will actively promote the industry radiation effect in the Pakistan and China.

Related equipment.

Related equipment mainly refers to transportation tools, handling facilities and related equipment.

Logistics infrastructure development level directly affect the efficiency of the logistics network. Logistics enterprises according to the requirements of the user number, time and place to realize rapid response that will depend on the perfect

degree of the regional logistics facilities, which become an important sign to measure the efficiency of the regional logistics.

B. China and Pakistan regional logistics enterprise system.

The purpose of logistics enterprises is to integrate logistics functions such as transportation, warehousing, distribution, processing packaging and information processing, and to optimize logistics resources. Logistics enterprises are divided into transport enterprises and warehousing enterprises.

Transportation enterprises mainly consider the cost control. Generally speaking, in the cost structure of logistics transportation enterprises, the main types are inventory cost, storage cost, transportation cost and management cost. In order to reduce the cost of logistics transportation, it can be optimized from the following points:

It is necessary to arrange and classify transportation materials and goods, and reduce the cost of materials in storage by building a modest warehouse, so as to improve the operation speed of materials. In the aspect of logistics transportation, it can shorten the storage period and time of materials, and optimize the follow-up management cost, such as maintenance and cost of goods loss. Besides, we can choose the advanced storage management mode. In the storage and utilization of the warehouse, the storage density of transportation materials and goods should be improved so as to maximize the utilization of warehouse space so as to reduce the storage expense.

As an important part of logistics enterprises, warehousing has always played an important role. According to the importance of logistics warehouse, reasonable and efficient logistics can accelerate the logistics speed and reduce unnecessary cost. At the same time, it can guarantee the normal operation of processing and production, and efficient logistics warehouse management is vital to production activities. At present, China's warehousing and logistics enterprises have a low level of storage facilities, which results in the overflow of storage facilities and surplus. In addition, in our country, the inventory cycle is really long, which greatly increase the inventory cost. what is more, due to the imperfect of inventory and backward, a lot of inventory still rely on manual operation, which greatly reduce the efficiency of inventory.

At present, due to the late start of logistics enterprises in China, the logistics enterprises are characterized by small scale and small quantity. So, in the future, we should try our best to attract new enterprises to join. Besides, the construction of logistics enterprise system should focus on storage and transportation.

C. China and Pakistan regional logistics demand system.

Regional logistics demand is mainly related to regional economy. The more enterprises in the region, the more industries and commodities, the more logistics demand, the larger the scale of regional logistics. In 2013 China's proposed C-pec boosts trade ties between the two countries. At the same year, Pakistan has issued a "2012-2015 trade policy framework", which determines the export \$95 billion in 3 years. The proposal of the C-pec has promoted the economic and trade relations between China and Pakistan,

which thus increases the demand for regional logistics and drives the economic development of the two countries.

However, the trade between China and Pakistan is on a single trading. Through analysis of China-Pakistan commodity trade, we find that the products exported to Pakistan by China are mainly manufactured goods and mechanical transport products. Therefore, it is necessary to adjust the industrial structure and break out of the industrial structure that is oriented of original energy and agricultural production. Hence, forming machinery manufacturing and high-tech industry as the pillar of a variety of enrichment of industry cluster, nurturing the industrial cluster and processing base for Pakistan, and strengthening the effective allocation of resources. We will make full use of the relevant policies of the C-pec.

Besides, the port of Gwadar is only about 400 km from the strait of Hormuz, which is the world's most important oil corridor. Currently, China is shipping goods from the oil-rich Middle East to dangerous waters such as the Arabian sea, the Indian Ocean, the strait of Malacca and the south China sea. If the goods by sea to Gwadar port first, then to road transport in China, which can shorten 85%. In this way, we not only can give full play to its geographical advantages and reduce the transportation cost, but also can greatly promote the economic growth of Gwadar and drive the local logistics requirements.

D. China and Pakistan regional logistics management and intermediary system.

Mainly playing the role of the government departments in this section. The competent department of the government is not only responsible for the direct management of the logistics market, and is responsible for the logistics industry policy, regulations and related logistics standard. Besides, it is responsible for the development of regional logistics development strategy and planning. Each department should play its own role, and the functions of each department should not be confused. At present, the management system of multiple departments is the main constraint factor for the development of regional logistics in China. Therefore, in the process of constructing the logistics system of China and Pakistan, we should coordinate the functions of various departments and strive to maximize the role of each department.

At present, China's logistics development is in its infancy, which is needed intermediary organizations to regulate the behavior of logistics market, accelerate the socialization process of enterprise logistics, and train modern logistics enterprises. These intermediary agents play a role that the government cannot play, which implements industry self-discipline and regulates market behavior.

E. Building the regional logistics information platform.

Building the regional logistics information platform is mainly include logistics demand, logistics supply, transportation tools and inventory.

Logistics information platform is to solve the information sharing, system integration and interconnection between various information channels. The main purpose is to realize the sharing of logistics infrastructure information, user

demand information, logistics supplier information, logistics market information, logistics transaction information and relevant policies and regulations.

Construction of logistics information platform can effectively integrate existing logistics information resources, which is beneficial to giving full play to the advantages of regional logistics system and strengthen the contact of each section of logistics system in order to implement information sharing between each system, promote the contact and communication between departments, and provide support and guarantee for the rapid development of logistics industry. Besides, it can reduce logistics cost and improve logistics efficiency. Hence, this mode of operation can improve the transparency of each logistics operation, reduce the link of logistics information exchange and shorten the cycle of logistics operation. The most important is to build the logistics information platform to improve the quality of logistics service. Through the platform, the goods can be tracked, monitored and monitored in real time, timely, timely and quickly.

To sum up, the implementation of logistics information platform will greatly facilitate the process of informatization, networked and automation of logistics industry, which will help reduce logistics costs and improve logistics efficiency. By establishing logistics information platform, the competitiveness of port logistics can be improved.

III. POLICY RECOMMENDATIONS FOR THE CONSTRUCTION OF THE C-PEC

The construction of regional logistics system is mainly planning, which involves various aspects of theory and practice. Not only we should absorb the successful experience of other countries, but also should make systematic and rational plans from our own perspective. At the same time, we should give full play to the role of the government and the logistics departments. The specific policy recommendations are as follows:

1. Establish a special logistics department

At present, multi-sectoral management system is the main obstacle to the development of modern logistics in China. In order to avoid the powers of the logistics division and give full play to its function, establishing a logistic department and concentrating on logistics administration privilege in our country are urgent tasks so that we can focus various logistics resources within the logistics system and organic integrated according to the intrinsic properties

2. Accelerate the construction of multi-modal transport system

Due to the weak logistics base of China and Pakistan, trades between two countries mainly via road transportation and air transportation. Railway transportation is still under construction. In addition, highway and air transport line is single and the natural environment is relatively poor, which results that logistics transportation present a seasonal cycle changes. Hence, this kind of phenomenon is not conducive to China's economic and trade exchanges. The construction of the port and airport facilities as the core, highway, railway and shipping as the basis, efficient and convenient multi-modal transport logistics network system is the key

point of the logistics construction of C-pec in the future. Multimodal transport system can change container logistics is not smooth and reduce the container in the port, customs, road and yard retention time, which will reduce the logistics cost in the process of transport of goods. Therefore, accelerating the establishment of multi-modal transport system is an important basic construction project to improve logistics efficiency and expand trade volume.

3. Reasonable layout of logistics nodes

Logistics nodes mainly include logistics park, logistics center and distribution center. Designing logistics node should consider from multiple directions, including geographical location, economic situation, the convenience of traffic and the circumstance of surrounding supporting facilities. It can choose the appropriate logistics node from multiple angles and give full play to their respective functions.

4. Actively build a logistics system information platform

At present, the development mode of logistics information platform is not yet mature, and it requires active cooperation between the two countries to build a mature information platform. Logistics information platform is a professional platform to realize resources and information sharing, which mainly realizes the integration of resources. Logistics information is the key element of modern logistics activities. Establishing an open multi-functional and multi-level comprehensive logistics information platform is the precondition for ensuring the development of regional logistics industry. We can improve the level of informatization of enterprise logistics and strengthen information platform to improve the logistics information platform so that to build a more functional integrated logistics information platform in the future.

5. Establish bonded logistics park

The bonded logistics park can use its advantages in policy and function to build professionalization, informatization and socialized logistics service platform, which will strengthen the service and play a leading role to the surrounding area. On the one hand, bonded logistics park can promote the accumulation and development of peripheral processing trade so that to establish the fast track of raw material distribution and finished product export. On the other hand, the bonded logistics park, relying on superior geographical conditions, advanced logistics facilities and special preferential policies, attracts a large number of logistics enterprises and procurement and distribution intermediaries, which will form a stable logistics demand and promote economic growth quickly.

To sum up, the construction of bonded logistics park in China and Pakistan can reduce logistics transportation costs and enhance the competitiveness of port operations. So, it is necessary to establish bonded logistics park.

6. Use RMB to settle accounts

We can also use a unified settlement tool to improve the logistics system. By using RMB to settle accounts, it can reduce the inconvenience caused by the use of multiple currencies and increase the convenience and consistency of settlement. Thus, it can save the cost of foreign exchange. In addition, the use of RMB settlement can avoid the impact of large exchange rate fluctuations and reduce the risk of

logistics companies. Moreover, the logistics enterprises have eliminated the exchange link through the settlement of RMB, and the fund to account time is shortened, which can also improve the settlement efficiency of e-commerce.

IV. CONCLUSION

China is implementing the "the belt and road" strategy that focus on building the "China-Pakistan economic corridor". As a demonstration area in the implementation of the belt and road, which plays a crucial role. Among them, the construction of the logistics system of C-pec is an important part of communication between two countries.

As a link of economic exchanges, China shoulders the important mission of completing commercial trade and plays an increasingly important role in international trade. Therefore, the construction of a complete system of China-Pakistan logistics system plays an important role in economic development in the context of the belt and road.

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