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COOPERATION BETWEEN CHINA AND KAZAKHSTAN IN THE FIELD OF TRANSPORT AND LOGISTICS: STATUS, PROBLEMS, AND PROSPECTS

Abstract

This article addresses the pressing issue of cooperation between China and Kazakhstan in the field of transport and logistics, examining the current status, existing problems, and prospects for development in this area.

The study identifies the main problems hindering further expansion of cooperation: limited infrastructure capacity, complex customs procedures, a shortage of modern warehouse complexes, and an insufficient level of digitization of logistics processes.

Keywords: cooperation, China, Kazakhstan, transport, logistics, current state, infrastructure

Cooperation between China and Kazakhstan in the transport and logistics sector in recent years has been characterized by steady growth and strategic interaction. This is primarily due to the mutual interest of the two countries in implementing large-scale infrastructure projects within the framework of the Belt and Road Initiative [1]. The current state of this cooperation demonstrates dynamic development, reflected in a steady increase in transport volumes, the creation of modern logistics hubs, and improvements in transport infrastructure.

One of the most notable examples of effective cooperation is the operation of the Khorgos-Eastern Gate dry port, which has become a key transit point between China and Europe, significantly reducing transportation times and costs. The Western China-Western Europe international transport corridor project is also being actively implemented, allowing Kazakhstan to occupy a strategic position in

global logistics chains. However, the development of cooperation is not without its problems. Key challenges include insufficient capacity of a number of transport routes, inconsistencies in customs and administrative procedures, a shortage of modern warehouse and terminal facilities, and problems with the digitalization of logistics processes. In addition, Kazakhstani researchers point to the risk of increased economic dependence on China and an imbalance in foreign trade.

Table 1. Key Transport Corridors between China and Kazakhstan

Corridor/ Hub	Year Opened	Capacity (TEUs/year)	Distance (km)	Main Function
1. Khorgos Dry Port	2015	500,000+ TEUs/year	N/A (hub)	Multimodal logistics and customs clearance hub for China– Europe
2. Dostyk Station	1954 (modernized)	Up to 25 million tons/year	Kazakhstan– China border	Key railway transshipment point on the China– Kazakhstan border
3. Altynkol Station	2012	Up to 25 million tons/year	Kazakhstan– China border	Modern rail freight transfer terminal with gauge- changing facilities
4. Western China– Western Europe Route	Ongoing (mainly 2015– 2025)	33 million tons/year (2025 target)	8,445 km (total from Lianyungang to St. Petersburg)	Mainland Eurasian land corridor for road transport and multimodal cargo flows

A review of research on China-Kazakhstan cooperation in the transport and logistics sector shows that this topic attracts particular attention from researchers as strategically important for economic interaction between the two countries. Scientific publications examine various aspects of bilateral relations, focusing on the role of infrastructure projects and initiatives, primarily within the framework of the Belt and Road Initiative.

A number of authors emphasize the geopolitical and geo-economic significance of Kazakhstan as a key link in the transit route between China and Europe. The studies emphasize that, thanks to its advantageous geographical location, Kazakhstan acts not only as a transit hub but also as a full-fledged partner of China in the field of logistics and transport services. Particular attention is paid to the New Silk Road initiative, in which Kazakhstan plays a central role, contributing to the development of transcontinental transport corridors [2].

The researchers' work extensively covers the analysis of projects and programs implemented by the two countries. Central among these is the implementation of joint initiatives for the construction and modernization of infrastructure, including the «Western China-Western Europe» project. This project has been repeatedly studied in terms of economic efficiency, impact on trade growth, and improvement of logistics connectivity between the two countries. Studies show a significant reduction in transportation time and cost, an increase in the level of logistics services, and growth in the competitiveness of Kazakhstan's transit potential.

Some studies are dedicated to examining the impact of the construction of cross-border logistics terminals, such as the Khorgos-Eastern Gate dry port. An analysis of scientific publications indicates that the creation of this transport and logistics complex has contributed to the intensification of bilateral trade, attracted foreign investment, and provided new jobs in border areas. Moreover, these complexes have become not only logistics hubs but also growth points for the regional development of Kazakhstan.

The authors also examine existing problems and logistical barriers that arise in the implementation of joint transport and logistics projects. Researchers consider the most common problems to be the imperfection of the legal framework, the length of customs clearance procedures, the limited technical capabilities of the infrastructure, and the insufficient level of digitalization of cargo flow management. The authors emphasize the need for the two countries to develop and adopt coordinated measures to remove these obstacles, which will allow them to realize their existing potential at a higher level [3].

A number of publications focus on promising areas of cooperation between Kazakhstan and China, such as the further expansion of container transport, the introduction of new multimodal logistics schemes and digital technologies, and the integration of the two countries' national transport and logistics platforms. Researchers note significant prospects for the development of cooperation in the field of digitalization and the use of modern logistics solutions, such as blockchain technologies, intelligent transport systems, and automated warehouses.

Scientists call China and Kazakhstan «strong partners» especially in logistics between the East and the West. For example, Dan Huang and co-authors, in an article analyzing trade barriers, note that the Belt and Road Initiative has significantly improved the quality of trade through transport and logistics cooperation [4].

A study on Chinese companies' investments in Kazakhstan's transport industry emphasizes that Kazakhstan needs to upgrade its outdated infrastructure, and Chinese companies can contribute by applying modern container transport and multimodal solutions.

Some Chinese researchers note the importance of distinguishing between the «Railway Community» (European Union) and China's «Transport Initiative» They point out that China presents the «belt» as a flexible investment platform that is incomparable to the formal structures of integration organizations.

Time magazine, citing remarks by Zhu Feng, dean of the Institute of International Relations at Nanjing University, mentions that Chinese scholars see the development of land ports such as Khorgos as strategically important, although they acknowledge that rail transport is more expensive and less efficient than sea transport, except in cases where speed is important.

Professor Taylor Fravel of MIT (drawing on Chinese sources) notes that China has chosen political and diplomatic methods in building transport links with Kazakhstan in order to increase regional stability and reduce support for separatism in Xinjiang.

At a meeting between President Xi Jinping and President Tokayev in Astana on June 16, 2025, Xi emphasized the priority of building cross-border railways and improving port infrastructure as the basis for further cooperation [5].

As of June 2025, the volume of rail freight traffic between Kazakhstan and China had grown by 48%, reaching 32 million tons. Exports increased by 25%, and transit increased from 17.6 to 27.5 million tons. Kazakh Temir Zholy plans to double transit to 55 million tons by 2026 and bring it to 100 million tons by 2029. [6] These data underscore the opinion of Kazakhstani experts about a significant increase in transport capacity and confirm the republic's strategic role as a bridge between China and Europe.

The Nurly Zhol program is focused on modernizing transport, logistics, and IT infrastructure and is seen as a direct response to the opportunities presented by the Belt and Road Initiative. Its main goal is to turn Kazakhstan into a key Eurasian transport hub.

Scientists note that the synergy between Nurly Zhol and the Chinese strategy strengthens Kazakhstan's logistics potential, promotes digitalization, interactive coordination, and acceleration of transit processes.

The MDPI study emphasizes that the launch of the joint Nurly Zhol and Silk Economic Belt program in 2016 led to a significant reduction in logistics times: transportation along the WE-WC route takes 10 days instead of 45 days by sea or 14 days by Trans-Siberian Railway. Kazakh scientists consider this to be convincing evidence of the advantages of multimodal logistics within the framework of cooperation with China.

Joint studies reveal the danger of Kazakhstan becoming a «raw materials appendage» of China. For example, sinologist K. Syroezhkin warns of the risks of excessive dependence on raw materials supplies and the dominance of Chinese goods in local markets [1].

Table 2. Common Logistics Barriers in China-Kazakhstan Trade

Category	Description
1. Infrastructure	Limited throughput capacity of rail and road networks, congestion at key border crossings
2. Customs and Administration	Lengthy and inconsistent customs procedures, lack of harmonization between systems
3. Warehousing and Terminals	Shortage of modern warehouses, intermodal terminals, and cold storage facilities
4. Digitalization	Low integration of digital platforms, lack of real-time cargo tracking and data sharing
5. Legal and Institutional	Uncoordinated legal frameworks, outdated bilateral agreements, regulatory uncertainty
6. Geopolitical	Concerns over economic dependence, regional competition, political sensitivity of transit routes

The European Union, the United States, and other countries have also recently been concerned about the growth of China's geopolitical influence in the world and in Europe in particular. As described earlier, Chinese companies are actively investing in the development of port and transport infrastructure in Eastern and Southern Europe, gaining the loyalty of these countries. At the same time, given that the «Chinese model» is not a democratic model and contradicts the ideas of freedom and democracy, «extrapolating» such a model to other countries will not lead to effective development in those countries, but will only consolidate authoritarian regimes that will act not in the interests of their people, but in the interests of China. As if contrasting the interests of «Western civilization» with those of China, the EU plans to sign a new strategy for Asia, which involves improving transport, digital, and energy links. However, no alternative strategy has been finalized yet.

Many politicians have made critical statements about the Chinese initiative in recent years. French President Emmanuel Macron has stated that the Chinese project should not be a «one-way street» The US position was voiced by Defense Secretary J. Mattis, who stressed that «in a globalized world, there are many belts and many roads» In March 2018, during a visit to Beijing, British Prime Minister Theresa May refused to endorse the initiative, and Australia also refrained from doing so. As a result, Jonathan Hillman believes that the Belt and Road Initiative may actually unite China's competitors rather than divide them [7].

Finally, there are also risks for China itself in this initiative and the projects within it. First of all, there is concern that the projects that have been started may not be implemented. Foreign experts also speak about this, asserting the riskiness and uncertainty of many projects within the initiative. B. Conrad, vice president of the Mercator Institute for China Studies in Berlin, argues that "there will be a large number of projects with unforeseen consequences. Many of these projects are

subject to the risks of problem loans and high default risks. The risk to China's banking system is, by definition, a risk to the global banking system" [8]. Similarly, Chinese experts are not always confident in the feasibility of many projects. For example, Chengang Xu, professor of economics at the Beijing Graduate School of Business, noted that one of the main goals of the initiative is seen as China's attempt to "postpone the solution to the problem of overproduction, when the country has accumulated a large amount of excess capacity and many companies have effectively turned into 'zombie companies' (as in Japan before), especially in the metallurgical and construction sectors" [9].

Taking all this into account, it is possible to construct a diagram describing the risks of implementing the Belt and Road Initiative for both Kazakhstan and other participants at the present stage:

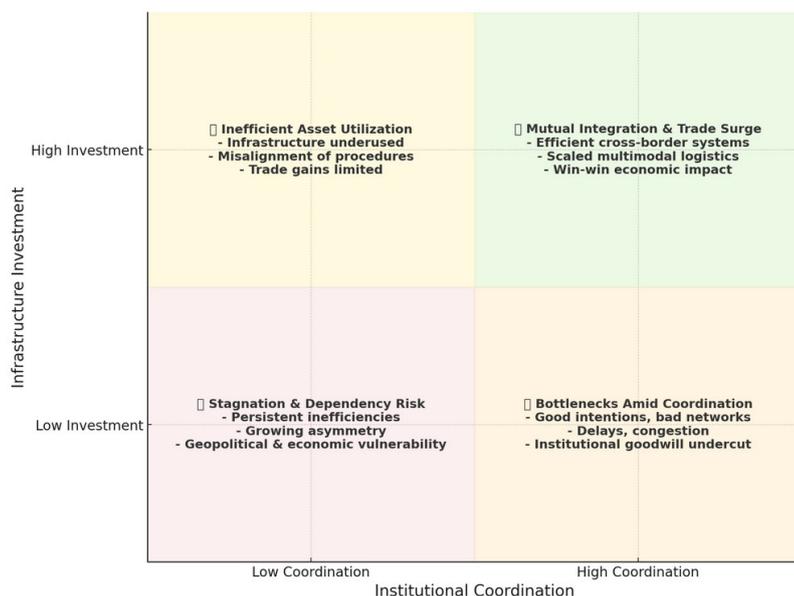


Figure 1. Future Development Scenarios for China-Kazakhstan Logistics Cooperation

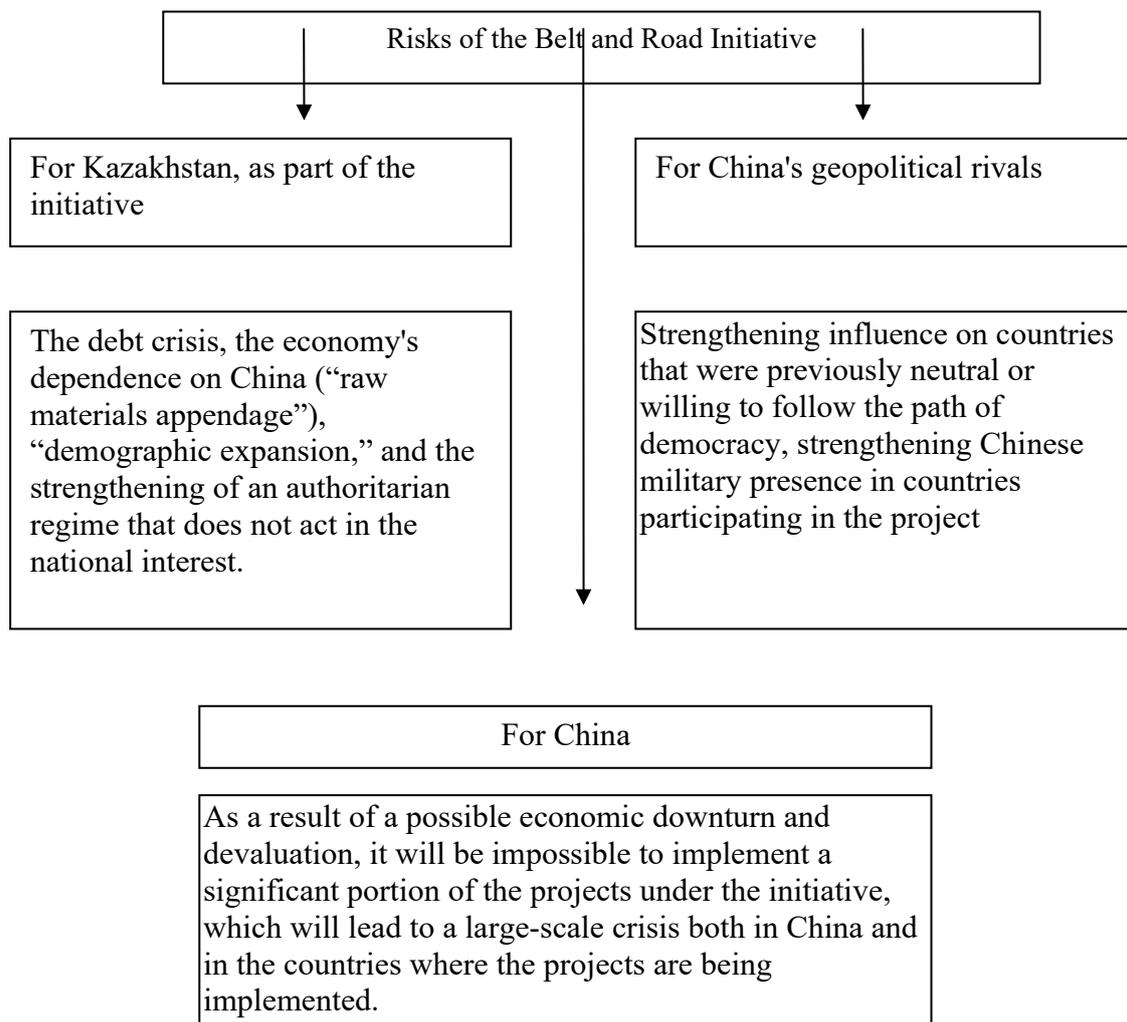


Figure 2. Risks of implementing the Belt and Road Initiative at the present stage

Thus, the figure shows that there are risks associated with the initiative for the countries participating in the project, and these risks are already evident at present: these are problems related to the debt crisis in connection with the implementation of projects, China's economic and demographic expansion into these countries, the economy becoming dependent on China, effectively turning it into a source of cheap raw materials, the transfer of environmentally unfriendly industries, and the strengthening of undemocratic regimes that will not act in the national interest. For China itself, the risks are related to the economy, since in the context of its decline and the devaluation of the yuan, there may be problems with the implementation of a number of costly projects, and hence a large-scale economic crisis in the country, which will also affect other countries involved in the Belt and Road Initiative projects.

Thus, a review of existing research allows us to conclude that transport and logistics cooperation between China and Kazakhstan is a priority area of bilateral relations, which has a positive impact on the economies of both countries and contributes to the development of Eurasian transport corridors. Despite the existing difficulties and barriers, scientific studies show that strategic partnership in the transport and logistics sector has significant potential for further expansion and deepening of mutually beneficial economic cooperation between the two countries.

The prospects for transport and logistics cooperation between China and Kazakhstan remain very favorable. The most important areas for future cooperation include the modernization and expansion of infrastructure, the development of multimodal transport, the introduction of digital technologies, and the creation of a unified information space. It is also necessary to improve the legal and institutional framework, which will reduce logistical barriers and increase the efficiency of international transport.

Thus, despite the existing difficulties, transport and logistics cooperation between China and Kazakhstan demonstrates significant potential for further development and strengthening of a mutually beneficial partnership.

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