

Kazakhstan

Trade Facilitation and Logistics Development Strategy Report



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ADB

KAZAKHSTAN: Trade Facilitation and Logistics Development Strategy Report

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Asian Development Bank

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Abbreviations and Acronyms

ADB	–	Asian Development Bank
CAR	–	Central Asia Region
CAREC	–	Central Asia Regional Economic Cooperation
CIS	–	Commonwealth of Independent States
EU	–	European Union
GDP	–	gross domestic product
KazAto	–	Union of International Road Carriers of the Republic of Kazakhstan
PRC	–	People's Republic of China
TEU	–	twenty-foot equivalent unit
TIR	–	Transport Internationaux Routiers
XUAR	–	Xinjiang Uygur Autonomous Region

Foreword

The Asian Development Bank (ADB) is pleased to provide this report on the state of the transportation and logistics sectors in Kazakhstan. It covers key measures needed to make these sectors more efficient and cost-competitive. This volume will be useful for government policy makers, providers and users of transport and logistics services, and other stakeholders. Efficient and cost-competitive transportation and logistics sectors will enable Kazakhstan not only to spur economic activity and engender social and political cohesion within its borders, but also to take full advantage of its geographical position and serve as a transit corridor between the dynamic and growing economies in the East and West.

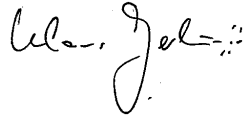
This report is part of a series of nine that cover the countries in the Central Asia Regional Economic Cooperation (CAREC) area: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyz Republic, Mongolia, the People's Republic of China (specifically its Inner Mongolia and Xinjiang Uyghur autonomous regions), Tajikistan, and Uzbekistan. This series is part ADB's continuing support of CAREC and the region in an effort to further poverty alleviation and secure a better future for people. Support, provided under the ADB CAREC Program, has been focused on promoting more efficient and effective economic cooperation among CAREC countries in the areas of transport, trade policy, trade facilitation, and energy.

The reports highlight the substantial challenges CAREC countries need to overcome. Aside from being landlocked with varied terrain, these countries are challenged by inadequate infrastructure, unsupportive systems and policy environment, and lack of skills and management know-how. From the numerous measures recommended in these reports, a common theme has emerged: the compelling need for the members of CAREC to achieve unity in purpose and action. Across borders, customs procedures need to be harmonized, tariffs rationalized, and a common framework for achieving seamless movement of cargo agreed upon. Clearly, a general atmosphere of cooperation needs to be achieved if the whole region is to reap the full benefits of efficient and competitive transportation and logistics services.

ADB hopes that the publication of this report, as well as the eight others in the series, would inspire such spirit of cooperation and unity in the region.

The conduct of these trade logistics studies embodies ADB's new strategy under its Strategy 2020 and its five core areas of operation, two of which are infrastructure and regional cooperation and integration. The publication of the reports, meanwhile, is in line with ADB's new strategic direction of focusing on knowledge which is one of the five drivers of change. It is part of the efforts of the East Asia Region Department to develop knowledge products that will support ADB's mission of reducing poverty in Asia and the Pacific.

ADB staff contributions from the Financial Sector, Public Management, and Regional Cooperation Division, East Asia Department, and the Department of External Relations are greatly acknowledged. We also acknowledge the efforts of consultants who conducted primary research in the field. These combined efforts have resulted in a timely and significant contribution to trade facilitation and logistics in the CAREC region.



Klaus Gerhaeusser
Director General
East Asia Department

Executive Summary

Country Profile

Geography

Kazakhstan is the second largest country in the Commonwealth of Independent States (CIS) and ninth largest in the world, measuring 2.7 million square kilometers or 1,049,150 square miles. It is bordered in the north by the Russian Federation; in the east by the People's Republic of China (PRC); in the south by the Kyrgyz Republic, Uzbekistan, and Turkmenistan; and in the west by the Caspian Sea.

Kazakhstan is rich in industrial metals and minerals. It has the world's largest deposits of chromium, vanadium, bismuth, and fluorine, and has large deposits of oil, gas, coal, and uranium. Its coal stocks are the ninth largest in the world.

Domestic Economy

Kazakhstan's gross domestic product (GDP) grew by an average of 9.5% per annum from 2002 to 2007 and is expected to grow by 7.8% in 2008. The industry sector accounts for 30% of GDP; the services sector, 20%; real estate, 15%; trade, 12%; and transport, 9%.

The industry sector is driven primarily by mining, which accounts for more than half of its outputs. Mining is based on Kazakhstan's abundant deposits of oil and gas, coal, copper, zinc, uranium, and silver. Plans to expand production in existing oil fields and to develop new ones will enable the country to produce as much as 3 million barrels per day by 2015, making Kazakhstan one of the world's top 10 oil producers.

External Trade

Foreign trade accounts for 94% of Kazakhstan's GDP. The country's three largest trading partners are the PRC, the European Union (EU), and the Russian Federation. In contrast, its trade with its central Asian neighbors accounts for only 1.7% of its imports and 2.5% of its exports. This can be explained by weak infrastructure that connects Kazakhstan to the Central Asia Region (CAR) and to the burdensome cross-border procedures that exist among them.

Kazakhstan's main imports are machinery, mineral and chemical products, vehicles, articles of iron and steel, and electric and electronic equipment. Its main exports are mineral fuels and oils, iron and steel, copper, and inorganic chemicals.

Strengths-Weaknesses-Opportunities-Threats Analysis Results

Kazakhstan's strength lies in its rich resource base, its geographical position as a transit country between Europe and Asia, and a transport system that is more efficient and cost-effective than others in the CAR. Its weakness lies in its transport system being not well-linked to international transport systems, a manufacturing system with low productivity, a small consumer demand for goods and services, and a huge land area that requires extensive infrastructure investments.

Assessment of the Transport and Logistics Sectors

Transport Sector

Kazakhstan's transport system comprises about 88,400 kilometers (km) of roadways; 14,205 km of railways; 3,900 km of waterways; and up to 61,000 km of air routes. Its road and rail systems carry nearly 90% of its total cargo load.

However, its transport networks are in poor condition, with obsolete infrastructure and outdated technology. Thus, its transport costs account for 8%–11% of the final cost of goods, in contrast to the 4%–4.5% share to total cost in industrialized countries.

Rail Transport. Compared to its neighbors, Kazakhstan has superior rail infrastructure. Tracks are better maintained due to the availability of more funds for maintenance and to the recent purchase by the government of new locomotives and railway tracks.

The rail system has 5,192 locomotives and 59,954 rail wagons. It also has container block trains. Its volume of freight has grown steadily from 2000 to 2006 by an annual average of 6.4%. Freight consists mainly of heavy machinery and bulky commodities (high volume and low value).

Road Transport. Kazakhstan's roads are mainly Class III. Freight volume transported through these roads is 6.4 times more than that by rail, and has increased by an average of 8.3% annually.

Significant for road transport in Kazakhstan is the planned Western Europe–Western [People's Republic of] China project measuring 2,624 km that starts from Orenburg (Russian Federation) and ends at Korgas (the PRC), passing through five Kazakh oblasts. This T920-million project will be implemented from 2009 to 2016.

Air Transport. Kazakhstan's aviation industry is considered one of the best, if not the best, in the CAR. It has relatively well-established air hubs at Astana, Almaty, and Atyrau, which together with four other domestic airports now meet the requirements of the International Civil Aviation Organization. The national carrier, Air Astana, has continuously invested in modernizing its assets and has aggressively used information communication technology in transforming its airline operations. Moreover, the government has proactively been seeking and negotiating new air routes to major cities in the world, and has been facilitating the country's accession to major international agreements and conventions. Air Astana now flies to 12 major world cities.

Pipe Transport. Kazakhstan needs an extensive and reliable pipeline system to transport oil and gas to markets, principally the PRC. Its most significant pipeline development is the construction of the Baku–Tbilisi–Ceyhan line through the Caspian Sea. It is expected to handle a throughput of 23 million–56 million tons of crude per year. Kazakhstan and Azerbaijan play a key role in this project, which will pave the way for the trans-Caspian flow of oil from Aktau. Meanwhile, in the east, oil pipelines linking the Tenkiyak field to Kumbol has started operations and will send more oil to the PRC.

Logistics Sector

Kazakhstan has 73 enterprises offering logistics-related services. Service providers are express and courier companies, customs brokers and freight forwarders, or manufacturers and traders.

Express and courier companies are mainly multinational corporations. They have representative offices that maintain liaison with overseas offices and oversee domestic distribution. They own warehouses and a fleet of trucks. On the other hand, local-licensed customs brokers, freight forwarders, and multimodal transporters are competent in providing integrated solutions for customers and usually offer services that involve shepherding cargo through customs clearance and sending it by rail or road to final destinations. Meanwhile, the manufacturers or traders run their own fleet of trucks and self-operated warehouses for managing the supply chain.

Kazakhstan has a number of logistics centers, free-trade zones, and exhibition marketplaces to facilitate the production, warehousing, transportation, and final sale of products. Its two famous logistics centers are the High Tech Logistics Centre in Almaty and the DAMU logistics center. It also has exhibition complexes, the biggest of which is Adem Park in Almaty.

Challenges

Impediments to the realization of the full potential of Kazakhstan’s transport and logistics sectors fall under three categories: (i) physical infrastructure and transport facilities, (ii) institutional policies and regulations, and (iii) operational capability of the logistics industry.

Constraints in Physical Infrastructure and Transport Facilities

Constraints in Rail Transport System. Although better than most rail systems in the CAR, Kazakhstan’s railways face growing demand that requires having facilities, especially warehouses, in certain important rail nodes running at near capacity levels. Storage capacity in these nodes needs to be expanded.

Since the Russian Federation and the PRC are important trading partners, Kazakhstan must attend to rail transport issues with these countries. The cost of rail transport through the Russian Federation’s border posts needs to be reduced, while the customs procedures and documentation requirements in the PRC need to be harmonized and made simpler. Kazakhstan, for its part, needs to make the necessary infrastructure investments in the border post of Dostyk. Investments are needed in transloading facilities since the PRC uses international gauge tracks while Kazakhstan uses the former Russian Federation’s standard.

Constraints in Road Transport System. Kazakhstan has virtually no Class I and Class II roads. The quality of its roads is inconsistent across regions. Besides the low quality and capacity of roads, the existence of enclaves, which requires the crossing of borders, causes additional cost and time delays in certain transit routes. Another problem is empty return cargo, which also increases transport costs.

Constraints in Air Transport System. Kazakhstan has only one carrier (Air Astana), which limits innovation and the competitiveness of tariffs. However, Kazakhstan's population of about 15 million is unlikely to support two carriers. The main improvement must then come from better customer service and innovation at Air Astana.

Impediments Due to Difficulties in Operation

Lack of Expertise in Containerization. Kazakh companies are averse to sending cargo through containers, mainly because they are unfamiliar with the technical and documentation requirements. This limits their potential to integrate with world transport networks.

High Import Tariff for Containers. Kazakh customs have increased the tariff per container from \$200 to \$400.

High Cost of Containerized Transport. There are only a few containers in Kazakhstan. This increases the cost of finding one and of engaging a logistics service provider competent to handle containers.

High Fees and Complex Procedures for Visas. Kazakh drivers can drive to other countries without visas, except to Turkmenistan and the PRC, where they are charged \$75 and \$60 per entry, respectively. It takes long to apply for visas because of inefficient or complex processing and numerous documentary requirements.

Training and Human Resource Development Needs. The four established institutions in Almaty produce graduates trained in transportation. However, there is no available training in logistics, especially in integrated logistics, supply chain management, innovative technological applications, and International Federation of Freight Forwarders Associations (FIATA) and International Air Transport Association (IATA)-related subjects.

Impediments Due to Institutional Policies and Regulations

Unfavorable Customs Levies. Previously, export levies were based on volume, with \$250 being charged per sq m of cargo. This was recently changed, with levies being based on weight, at \$600 per ton. This new calculation is detrimental for shippers of heavy machinery.

Burdensome Customs Procedures. An exporter spends 54 days to export a twenty-foot equivalent unit (TEU) while an importer spends 53 days to bring in one due to complex and complicated customs procedures.

Frequent Changes in Customs Laws. Customs laws of Kazakhstan was last changed in April 2008, making the policy regime for the transport and logistics sectors too unstable for businessmen.

Unofficial Payments. Anecdotal evidence suggests that unofficial payments are required at border-crossing points.

Limitations in Banking and Finance. More banks need to be allowed into the Kazakh finance sector to meet the need for trade financing and remittance services. There is also a need to reduce the high cost of financing.

Recommendations

The study considered the ongoing initiatives of Kazakhstan to develop its transport and logistics sectors. The study suggests the inclusion of other cities and border posts in the scope of Kazakhstan's initiatives. It also suggests initiatives that are not hardware-related but are formulated to address limitations in operational capability and issues on policies and regulations.

Methodology for Developing a Plan Framework

The methodologies used to formulate the recommendations are

- (i) review of the transport corridors in Central Asia,
- (ii) analysis of demographic and economic patterns,
- (iii) identification of key locations that need emphasis,
- (iv) proposal of Tiers 1 and 2 locations for prioritization of investments, and
- (v) recommendation of specific measures.

Kazakhstan's Major Transport Corridors and Implications of Cross-Border Trade

Implications of Cross-Border Trade. Kazakhstan's exports are bulkier but lower in value than its imports. This causes capacity imbalance in rail transport where empty rolling stocks are often left in exporting countries to wait for enough backload to bring back. This reduces the number of stocks available in Kazakhstan, resulting in tight demand for, and increased cost of, such stocks. Over the immediate and medium terms, Kazakhstan cannot change the nature of its exports. The only way to mitigate this capacity imbalance caused by the trade imbalance is to improve the capacity, reliability, and efficiency of the rail links and rail terminals.

Kazakhstan should implement measures to improve trade and facilitate transit of goods to and from specific countries. For the PRC, it should encourage that country's accession to the Transport Internationaux Routiers (TIR) Convention. For the EU, it needs to promote the new trans-Euro–Asian railway, make railway tariffs competitive, and streamline its customs procedures. To improve trade with Japan and Korea, it should promote containerization.

Implications of the Six Transport Corridors. Of the six transport corridors most relevant to the CAR, Corridors 1 and 6 are most important for Kazakhstan because substantial parts of these routes are located inside the country.

A large part of Corridor 1 passes through Almaty and Astana. It links the country to the Russian Federation and the PRC. Aside from making the required investments in infrastructure, Kazakhstan needs to harmonize its documentation and customs procedures with those of the PRC's customs. Once capacity is expanded at the border posts and nodes along the corridor, dedicated container block train services at competitive rates can be considered along this route.

Among the nodes along Corridor 6 is Beineu, which links Turkmenistan and the Russian Federation. However, for cargoes coming from Almaty and going to Shymkent and then to Kyzylorda, there are no direct rail connections to Aktau and Atyrau. If a secondary rail line can start from Shalkar and proceed to Beineu, the route would integrate a complete rail route from east to west of Kazakhstan.

Implications of Demographic and Economic Indicators

In prioritizing locations of investments to develop the country's transport and logistics sectors, the following demographic and economic patterns ought to be considered:

- (i) The central region is sparsely populated while the northern and southern parts hold the highest concentrations of population.
- (ii) Almaty accounts for 20% of the country's GDP. The western zone is another key contributor to GDP. Other important economic centers include Karagandy, Atyrau, and Astana City.
- (iii) The western and central regions have the highest industrial outputs. Kazakhstan can only develop the full potential of its hydrocarbon industry if there is a reliable and well-connected transport system in the western zone. The central region is also an important manufacturing belt.
- (iv) Without dispute, the southern and northern regions have the highest agricultural outputs.
- (v) The western region enjoys huge inflows of foreign investments in the energy sector.

Proposed Locations of Interventions to Develop the Transport and Logistics Sectors

Based on the above analyses, the following cities are proposed as key nodes in the transport corridors in Kazakhstan: Almaty, Astana, Aktobe, Karagandy, Aktau, Atyrau, Taraz, Semey, and Beineu.

The border posts of Dostyk, Korgas, Troitsk, Zhaisan, and Karakalpakstan are also proposed to be priority nodes.

Proposed Prioritization of Investment Locations

Among the key nodes identified, it is proposed that first priority be given to the cities of Almaty, Astana, Aktau, Atyrau, Aktobe, and Karagandy.

Priority Recommendations

The following investments must be given priority to develop the transport and logistics sectors in Kazakhstan.

To improve physical infrastructure for both sectors, they need to prioritize the

- (i) construction of a new rail from Shalkar to Beineu, Korgas to Almaty via Zhetigen, and of a new road linking Shalkar to Beineu;
- (ii) electrification of the rail linking Makat to Kandagash, Dostky to Aktogai, and Aktogai to Mointy;
- (iii) improvement of the regional road systems from Kostanai to Aktobe to Uralsk;
- (iv) improvement of the airport at Semey, and the clearance efficiency at Zhaisan, Troitsk, and Karakalpakstan;
- (v) exploration of waterways transport from Semey to the PRC;
- (vi) rehabilitation of the road from Almaty to Taraz to Shymken;
- (vii) development of Aktau into an integrated logistics center; and
- (viii) increase in the throughput capacity at Dostyk and Korgas.

To improve operations capability and the policy regime, the following must be done:

- (i) review of container import tariffs, immigration rules to attract overseas logistics professionals, and customs procedures to consider setting up a single electronic window mechanism for permit application and declaration;
- (ii) promotion of container traffic;
- (iii) improvement of Kazakhstan's trade relations;
- (iv) conduct of FIATA and/or IATA courses;
- (v) introduction of a modern logistics curriculum and marketing with Almaty as the logistics education hub;
- (vi) streamlining, by customs, of the export and import procedures;
- (vii) consideration of a fund dedicated for transport and logistics; and
- (viii) provision of enterprise loans for small and medium logistics companies.

Conclusion

Kazakhstan needs to diversify its economy and reduce its dependence on its hydrocarbon industry. One area of diversification is to make full use of its unique geographical position by developing the transshipment industry. To do this, Kazakhstan must decrease the cost of transport and overcome the barriers posed by difficult terrain, cumbersome customs procedures, and nontariff trade barriers and friction that are so common in Central Asia. The initiatives it needs to undertake are outlined in this report. Kazakhstan is capable of undertaking these initiatives. After all, it has shown to the world that ethnically diverse people can live in harmony. It has also demonstrated that rapid economic growth can be achieved in a short period.

Introduction and Background

The technical assistance (TA) project, of which this report is an output, continues efforts to promote trade logistics development in the Republic of Kazakhstan as part of the Trade Facilitation Program of the Central Asia Regional Cooperation (CAREC) Program of the Asian Development Bank (ADB). The overall purpose of the program is to leverage transit trade for development, and transform Central Asia and the inland provinces of the People's Republic of China (PRC) into modern "silk roads" or "land bridges" connecting East Asia with Europe. Under the program, six transport corridors that traverse various parts of the Central Asia Region (CAR) are proposed as the focus of investment and development efforts. This can reduce the limitations, such as overlapping infrastructure building and duplication of efforts, brought about by sporadic and individual efforts by each country in the region.

The TA project aims to update the information needed to formulate a more integrated and complete trade facilitation strategy for Kazakhstan.

Project Scope and Outputs

The TA project has the following scope of work:

- formulate strategies to develop the regional trade logistics system and its corresponding transport network centers;
- select, allocate, and define the functions of trade logistics hubs;
- identify logistics facilities and services required at border posts, including logistics centers and logistics-related basic infrastructure, to improve customs clearance efficiencies;
- formulate recommendations
 - (i) to address containerization issues such cost and benefits and demand for the multimodal transport of containers;
 - (ii) to improve road transport networks, including increasing market demand for road transport services, organization of the shipping industry, and methods to lower ratio of return with empty load;
 - (iii) on the functions and architecture of the logistics platform, including general market information system for demand and supply, and a specialized system for logistics operators, this platform being interfaced with customs and financial service providers; and
 - (iv) to improve the efficiency of financial services for logistics operations, particularly on cross-border financial services;

- identify the policies and impediments to foreign direct investment in the logistics industry in Kazakhstan; and
- formulate recommendations on institutional capacity building programs for the logistics industry, including the provision of public education and vocational training, job markets, funding, and establishment of logistics training centers.

The major deliverables of the TA project are

- (i) policy, institutional, and financial constraints to the development of the logistics industry in Kazakhstan and recommendations to address these constraints;
- (ii) master plans for the development of the logistics industry, with particular attention to public infrastructure and a logistics platform, including single-window processing for customs clearance, and an over-the-counter dealing system for logistics providers;
- (iii) a preliminary list of public investment projects and public sector–private sector partnership projects for the Government of Kazakhstan to consider; and
- (iv) cooperation mechanism between Kazakhstan and the Xinjiang Uygur Autonomous Region (XUAR) of the PRC.

Project Methodology and Work Plan

Two key principles were employed for this TA project, namely, public–private partnership and local stakeholder support and buy-in. These principles were identified to ensure maximum local inputs during the diagnostic stage of the study. This will create a sense of ownership critical to the successful implementation of the TA project’s recommendations.

A TA team composed of one international and one domestic consultant was mobilized. The international consultant collaborated with, and guided, the domestic consultant in data gathering activities, site visits, and private and public sector consultation meetings. The international consultant also conducted a 2-week tour and visits of relevant sites, where primary information and data were collected. The rest of the project implementation period, which lasted from April to September 2008, was used for the analysis of information, collection of secondary information, and preparation of the report.

The stages in the work plan were as follows:

Stage 1: Obtaining Primary Information and Data

The international consultant discussed with the domestic consultant the purpose of the study and the project methodology, and both agreed on implementation modalities.

The TA team held several one-on-one consultative meetings with representatives of private- and public-sector stakeholders in Kazakhstan’s trade logistics sector. Quasi-government agencies and nongovernment organizations were also consulted. Insights from these sessions were used as a basis for identifying the challenges faced by the transport and logistics systems. Based on these insights, the consultants developed an overall plan and specific recommendations to address the limiting factors identified. The organizations that participated in this study are listed in Appendix 1.

Stage 2: Diagnostic Field Studies

To complement the consultations, field trips were conducted to cargo terminals, railway stations, distribution centers, border posts, and customs offices. These trips gave the TA team the opportunity to gather first-hand observations on how such facilities are run and to identify impediments to efficient and effective operations.

Stage 3: Identifying the Issues and Proposing Recommendations

This was the final stage of the work plan; the consultants jointly documented and analyzed the data and insights gathered. The existing situation in the trade logistics industry was first detailed and assessed. From this assessment, key issues, impediments, and possible investment projects were identified. Finally, the TA team formulated two sets of recommendations. The first set made specific investment proposals to enhance the transport infrastructure capacity of Kazakhstan. These included rehabilitation of roads, extension of railways, construction of new logistics centers, and improving the conditions of current infrastructure at border posts. The second set called for institutional reforms, policy changes, and operational improvements, including review of transport agreements, changes in visa, and documentation processes to improve the flow of passengers and cargoes, and the quality of education for logistics professionals.

Country Profile

Geography

Kazakhstan is situated in Central Asia, deep in the Eurasian continent. Its territory measures 2,724,900 square kilometers (sq km) or 1,049,150 square miles, the second largest among Commonwealth of Independent States (CIS) countries, and ninth largest in the world after the Russian Federation, the People's Republic of China (PRC), the United States (US), Argentina, Brazil, Canada, India, and Australia. Its territory exceeds the size occupied by the 12 founding members of the European Union (EU).

The country is bordered in the north by the Russian Federation; in the east by the PRC; in the south by the Kyrgyz Republic, Uzbekistan, and Turkmenistan; and in the west by the Caspian Sea, with which it has a continuous border measuring 1,894 km (1,183 miles). Its borders measure a total of 12,012 km (7,459 miles) (Figure 1). Its territory stretches from the lower Volga in the west to the foothills of Altai mountains in the east, a distance of some 3,000 km across two time zones. It also stretches from the West Siberian lowland in the north to the desert of Kyzylkum and the mountain range of Tien Shan in the south, a distance of some 2,000 km (Table 1).

Figure 1: Map of the Republic of Kazakhstan



Source: www.cia.gov

Table 1: Kazakhstan's Neighboring Countries, by Length of Border with Kazakhstan

Countries	Length of Border Shared (km)
Russian Federation	6,846
People's Republic of China	1,533
Uzbekistan	2,203
Kyrgyz Republic	1,051
Turkmenistan	379

Source: Agency of Statistics of the Republic of Kazakhstan.

Kazakhstan is divided into 14 oblasts (regions), each headed by a provincial governor (akims), and 5 economic regions. The economic regions are Western Kazakhstan, composed of the Aktyubinsk, Western-Kazakhstan, Atyrau, and Mangystau oblasts; Northern Kazakhstan, comprising the Kostanai and Northern-Kazakhstan oblasts; Central Kazakhstan, comprising the Akmola and Karagandy oblasts; Southern Kazakhstan, comprising the Almaty, Zhambyl, Kyzylorda, and Southern-Kazakhstan oblasts; and East Kazakhstan, to which the Eastern-Kazakhstan and Pavlodar oblasts belong. The country has 82 cities and towns, the biggest of which are Almaty, Shymkent, Karaganda, Zhambyl, Semipalatinsk, Pavlodar, Ust-Kamenogorsk, Astana, Uralsk, and Aktyubinsk.

Kazakhstan is rich in industrial metals and minerals. It has the world's largest deposits of chromium, vanadium, bismuth, and fluorine; and holds significant amounts of iron, chromium, lead, zink, tungsten, molybdenum, phosphorite, copper, potassium, and cadmium. It also has large deposits of oil, gas, coal, and uranium, having proven reserves of 3.6 billion tons of oil and 1.9 billion cubic meters of natural gas. Its coal stocks are the ninth largest in the world.

Domestic Economy

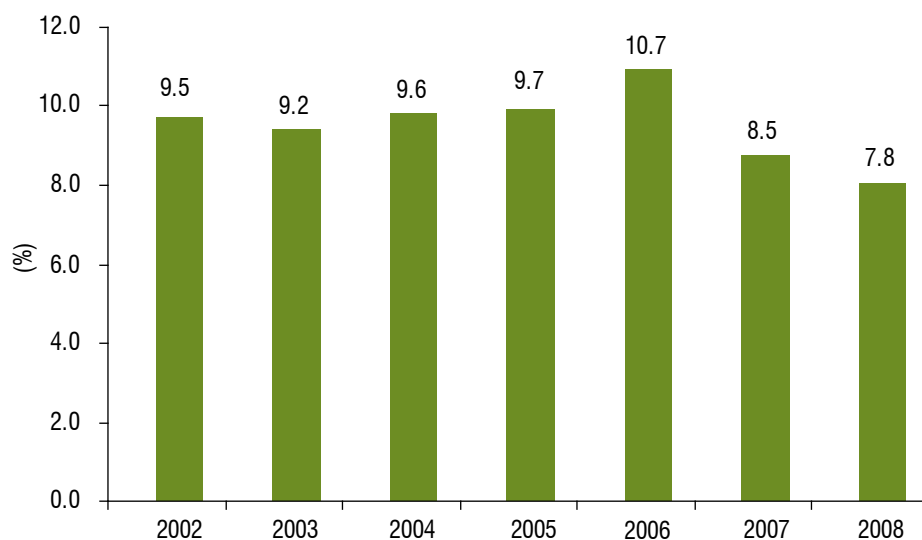
Kazakhstan's gross domestic product (GDP) grew by an average of 9.5% per annum from 2002 to 2007 (Table 2 and Figure 2). In 2008, its GDP is expected to grow by 7.8%, mainly as a result of the worldwide economic slowdown brought about by the US economic problems. Although Kazakhstan is relatively less exposed to the US economy as its trade volume with the US is only 2.6% of its imports and 3.0% of its exports in 2006, it is expected to face difficulties in obtaining financing for its capital intensive industries, such as construction.

Table 2: Gross Domestic Product of Kazakhstan, 2002–2006

Year	2002	2003	2004	2005	2006
Value (in \$ million)	\$24,637	\$30,833	\$43,150	\$57,123	\$80,414

Source: Ministry of Industry and Trade.

Figure 2: Kazakhstan's Annual GDP Growth Rate, 2002–2008 (%)



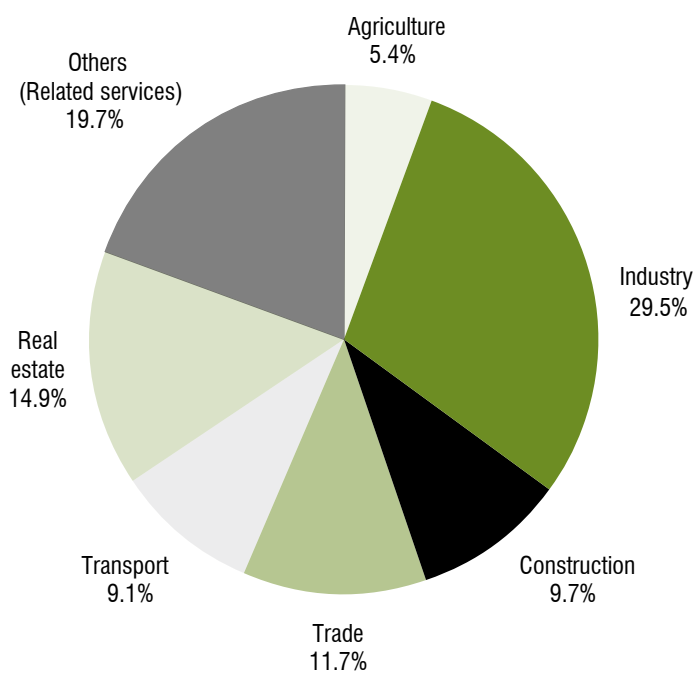
GDP = gross domestic product.

Note: The annual GDP growth rate for 2008 is an estimate.

Source: International Monetary Fund. *Direction of Trade Statistics*, various years.

Kazakhstan's economic structure consists of agriculture (5.4% of GDP), industry (29.5%), construction (9.7%), trade (11.7%), transport (9.1%), real estate (14.9%) and others (19.7%). The last category consists of service-oriented activities such as banking and finance (Figure 3).

Figure 3: Economic Structure of Kazakhstan, 2006



Source: Ministry of Industry and Trade.

The agriculture sector employs around 20% of the labor market. Kazakhstan is the sixth-largest producer of grains (includes wheat, rice, and barley) in the world. Livestock raising is also an important activity.

The industry sector is driven primarily by mining, which accounts for 54.5% of the sector's outputs; manufacturing, 39.4%; and production and distribution of electricity, 3.1%. The mining subsector has, as base, Kazakhstan's abundant deposits of oil and gas (Table 3), coal, copper, zinc, uranium, and silver.

Table 3: Energy-Related Reserves in Kazakhstan by Source

Source	Volume
Proven crude oil reserves	4 billion tons
Proven natural gas deposits	3 trillion cubic meters
Production of oil and gas condensate (2007)	67.2 million tons
Natural gas production (2007)	16.6 billion cubic meters

Source: US Department of State. www.state.gov/r/pa/ei/bgn/5487.htm

Industry analysts believe that the planned expansion of oil production, coupled with the development of new fields, will enable the country to produce as much as 3 million barrels per day by 2015, lifting Kazakhstan into the ranks of the world's top 10 oil-producing nations. Its major oil and gas fields and their recoverable oil reserves are Tengiz: 7 billion barrels of oil, Karachaganak: 8 billion barrels of oil and 1,350 billion cubic meters of natural gas, and Kashagan: 7–9 billion barrels of oil. In 2004, the Government of Kazakhstan increased its share of oil revenues by increasing taxes on new oil projects. In 2007, it amended the "Law on Subsoil and Subsoil Use", which gave the government the right to annul or amend subsoil contracts if the contracts represented a risk.

Kazakhstan's manufacturing sector is not well developed. Almost all capital and consumer goods are imported from the Russian Federation and the PRC. Manufacturing activities are limited to production of textiles, chemicals and fertilizers, and pharmaceuticals.

The building and construction industry deserves special mention. It enjoyed a boom from 2005 to 2007,¹ and real estate prices can easily double in a year's time. However, because of the housing problems in the US, investors have become risk-averse and demand a higher interest for any loan and debt-related instrument. As it is, the financing cost in Kazakhstan is already high by international standards. A check with Halyk Bank and Bank TuranAlem JSC (BTA) reveals that borrowing cost ranges from 14% to 22% per annum. Thus, many developers are strapped of capital and this inevitably slows the rate of expansion for this sector. The only exception is Aktau, which still enjoys a construction boom due to demand for real estate from energy companies.

¹ This is evident from the consultant's trip to Astana. The city has a relatively small population of 700,000, yet it is common to see many high-rise buildings and other construction projects.

External Trade

Kazakhstan has adopted a liberal policy regime in international trade. This has resulted in foreign trade accounting for a great majority of its GDP. From 2003 to 2007, total imports and exports accounted for an average of 94.1% of its GDP (Table 4).

Table 4: Selected Economic Indicators in Kazakhstan, 2003–2007 (\$ billion)

	2003	2004	2005	2006	2007
Gross domestic product (GDP)	30.9	43.2	57.1	81.0	103.8
Total international trade	28.2	41.5	56.0	74.4	96.6
As % of GDP	91.3	96.1	98.1	91.9	93.1
Exports	14.9	22.6	30.5	41.6	51.9
Imports	13.3	18.9	25.5	32.8	44.7

GDP = gross domestic product.

Source of basic data: International Monetary Fund (IMF). Various years. *Republic of Kazakhstan: 2007 Article IV Consultations: IMF Country Report No. 07/235, 2007*, and *Republic of Kazakhstan: 2007 Article IV Consultations: IMF Country Report No. 08/288, 2008*.

Kazakhstan's three largest trading partners are the European Union (EU), the PRC, and the Russian Federation (Table 5 and Figures 4 and 5). Its main imports are machinery, mineral fuels and oils, vehicles, articles of iron and steel, and electric and electronic equipment, while its main exports are mineral fuels and oils, iron and steel, copper, and inorganic chemicals.

Table 5: Percentage Share of Imports, Exports, and Trade Balance with 20 Largest Trade Partners of Kazakhstan, 2006

Import partners	%	Export partners	%	Trade balance partners	%
Russian Federation	36.8	EU	45.4	EU	36.1
EU	25.7	Russian Federation	10.0	Russian Federation	23.5
PRC	19.5	PRC	10.9	PRC	15.0
Ukraine	3.4	Romania	4.9	Turkey	2.9
Turkey	2.8	Iran	3.7	US	2.8
US	2.6	US	3.0	Romania	2.7
Korea	1.4	Turkey	2.9	Iran	2.0
Uzbekistan	1.2	Kyrgyz Republic	1.0	Ukraine	2.0
Belarus	1.1	Japan	1.0	Korea	1.1
Japan	1.0	Uzbekistan	0.9	Uzbekistan	1.1
Kyrgyz Republic	0.5	Korea	0.9	Japan	1.0
India	0.4	Ukraine	0.7	Kyrgyz Republic	0.8
Canada	0.4	Bulgaria	0.7	Belarus	0.6

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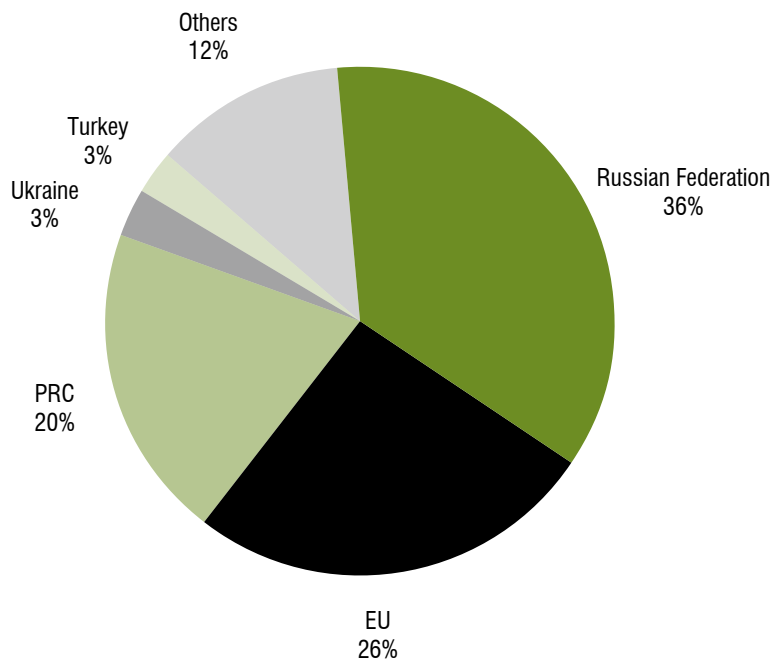
Table 5 (cont.)

Import partners	%	Export partners	%	Trade balance partners	%
Turkmenistan	0.4	Tajikistan	0.6	Switzerland	0.4
Switzerland	0.3	Switzerland	0.6	Tajikistan	0.4
Israel	0.3	Afghanistan	0.4	Bulgaria	0.4
Romania	0.2	Azerbaijan	0.4	Canada	0.3
Brazil	0.2	Saudi Arabia	0.3	India	0.3
Cuba	0.1	Moldova	0.3	Turkmenistan	0.3
UAE	0.1	Belarus	0.2	Azerbaijan	0.2

EU = European Union; PRC=People's Republic of China; UAE = United Arab Emirates; US = United States

Source: International Monetary Fund. 2006. *Direction of Trade Statistics*.

Figure 4: Percentage Share to Total of Imports of Kazakhstan, by Source, 2006

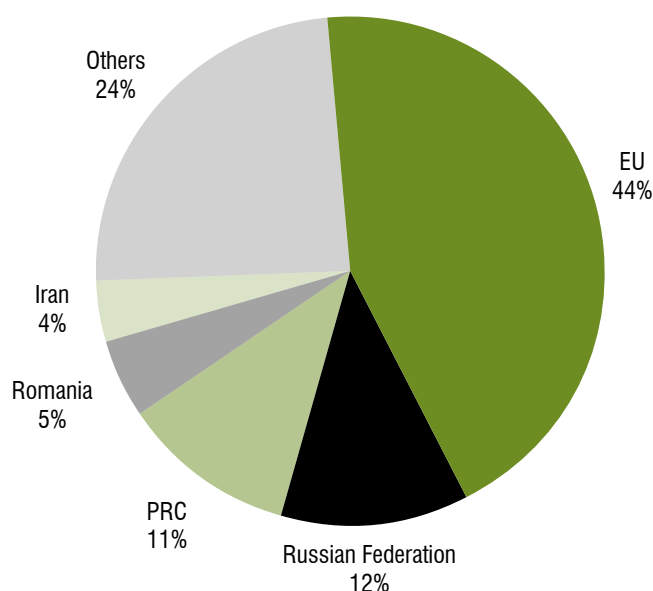


EU = European Union, PRC = People's Republic of China.

Source: International Monetary Fund. 2006. *Direction of Trade Statistics*.

The EU is the top trading partner of Kazakhstan. Germany and Italy are the third and fourth largest sources of imports, respectively, while Italy and France are the largest and fifth largest export destinations for the country. Energy is a major export to the region. Volume of energy export is likely to increase substantially with the development of the Baku–Tbilisi–Ceyhan (BTC) line across the Caspian Sea. The Kazakh port of Aktau plays a key role in this route.

Figure 5: Percentage Share to Total of Exports of Kazakhstan, by Destination, 2006



EU = European Union, PRC = People's Republic of China.

Source: International Monetary Fund. 2006. *Direction of Trade Statistics*.

The Russian Federation is the single most important country trading with Kazakhstan. It accounts for 36% of the imports and 12% of the exports of Kazakhstan. This is unsurprising as Central Asian republics still retain strong economic and political ties with the Russian Federation. Currently, Kazakhstan, the Russian Federation, and Ukraine are discussing stronger trilateral relations in which Kazakhstan can use Ukraine as a transit route to Europe, the latter being a partner in key economic and transport agreements with the EU. The country's trade relations with the Russian Federation is expected to remain robust and to grow rapidly.

The PRC is another key trading partner. Many Kazakh merchants and traders procure intermediate and finished goods from PRC, notably from the cities in the XUAR such as Urumqi, Yining, and Horgos. For instance, the Hua Ling Furniture Wholesale Complex in Urumqi is a popular destination for Kazakhs as a source of construction materials and furniture. The PRC imports a large amount of commodities from Kazakhstan, such as crude oil, coal, iron ores, and scrap metal.

A closer examination of Kazakhstan's trade flows with its 20 largest partners reveals that intraregional trade among Central Asian countries is very limited. Kazakhstan's trade with these countries account for only 1.7% of its imports (from Uzbekistan and the Kyrgyz Republic) and 2.5% of its exports (to Uzbekistan, the Kyrgyz Republic, and Tajikistan). This contrasts dramatically with Kazakhstan's trade with the Baltics, the Commonwealth of Independent States (CIS), and the Russian Federation, which together, account for 61% and 56% of the country's imports and exports, respectively.

The country's limited trade with other Central Asia Region (CAR) countries also contrasts with the significant shares of the PRC and EU in its total trade. This could be the result of weak

infrastructure that connects Kazakhstan to the rest of the CAR countries, and to the burdensome cross-border procedures among these countries.

A key export item of the country is energy and related products. Oil and related goods contribute from 30% to 40% of annual exports. Since 1993, Kazakhstan has attracted \$30.7 billion in foreign investment in the energy subsector, representing 76% of all foreign direct investments in that period. However, the government plans to diversify the economy to reduce over-reliance on crude and natural gas exports.

The greatest opportunities for Kazakhstan as a transit country in the immediate and medium terms will come from the PRC, specifically from the XUAR. According to the PRC's 11th five-year plan, the XUAR's foreign trade is projected to reach \$1.8 billion a year, increasing at an annual rate of 18% until 2010. In anticipation of this growth, various initiatives have been taken to enhance regional cooperation, such as the establishment of the Horgos International Trade Cooperation Centre bordering Kazakhstan, and the continued investments in critical border posts like Mt. Ala, Horgos, Turgat, and Baktu to enable the region to cope with future logistics demand.

Bilateral trade between Kazakhstan and the PRC has been growing robustly, mainly through the XUAR. In 2006, trade between the XUAR and Kazakhstan, which accounts for 55.1% of the total international trade of the XUAR, amounted to \$501.4 million, 0.02% less than that in 2005. XUAR exports to Kazakhstan totaled \$370.7 million, 21.9% more than the level in 2005. These consisted mostly of rice, food, fruits, vegetables, tea leaves, coal, edible oil, paper, textile, clothing, rubber products, machinery, and consumer electronic appliances. Imports amounted to \$130.7 million, 33.8% less than the 2005 level. These consisted of steel, fertilizer, scrap iron, lead, copper, fur, wool, and general materials for industries.²

The new Euro-Asia land bridge presents Kazakhstan and the XUAR greater potential for cross-border and transit trade. This route will greatly shorten the distance from the XUAR to Europe by more than 6,000 km or a quarter of the 24,000-km rail and sea travel using the conventional way of shipping goods eastward—from the XUAR to Lianyungang and then by sea to Europe. Goods bound for the US will also benefit from this new route. Using the route, goods can be transported through the Atlantic Ocean—a total distance of only 13,200 km—shorter by 44% than the route via the Pacific Ocean through PRC ports.

Trade between Kazakhstan and the XUAR has occasional conflicts. For instance, the PRC recently rejected several batches of Kazakh scrap metal exports on account of these goods having radiation levels in excess of what is acceptable to the PRC. Upon investigation, Kazakh agencies suspected that the high radiation came from the PRC mixing their own rejects into the Kazakh load. This does not happen frequently but it does affect bilateral trade between both parties.

² Xinjiang *Annual Report*, 2007.

Kazakhstan–XUAR trade transported through roads normally comes through Korgas in the PRC, while that transported by rail transit goes through Dostyk in Kazakhstan. A small portion of goods come through the border point of Maikapshagal. A higher proportion of trade is transported by roads, underlining the prevailing preference for road transit because of its greater flexibility and reliability.

One of the challenges facing Kazakhstan-XUAR trade is the use of different railway gauges, resulting in the need to transfer goods at the Dostyk station. The Kazakh customs clearance procedure for railways is also inefficient. For example, it can take 7 days for Kazakh customs to clear an incoming shipment. This is perceived to be due to inadequate manpower and equipment, a shortage of rail tracks, and the cumbersome inspection procedures. Cargo for Almaty from Urumqi would take 20 days to reach its destination.

Strengths-Weaknesses-Opportunities-Threats Analysis

Kazakhstan's strength lies in its rich resource base that consists mainly of minerals, oil, gas, coal, and uranium; and its strategic geographical position as a transit country between Europe and Asia. It also has a transport system that is more efficient and cost-effective than others in Central Asia. This transport system, however, is not well-linked to major markets and international transport systems. The country is also saddled with a manufacturing system that has low productivity and small consumer demand for goods and services. It also has to contend with its huge land surface, which requires extensive infrastructure investments.

The country, meantime, is faced with several immediate opportunities for growth and development. There is the new PRC–Western Europe route being developed that passes through it and offers a faster alternative to the trans-Siberian railway route. Its proximity to the PRC, India, and the Russian Federation provides it access to low-cost imports and huge markets for its exports. Finally, the current boom in oil and gas prices offers the country the opportunity to increase its revenues that can finance, among other imperatives, its infrastructure development needs. Among the threats faced by Kazakhstan are the ongoing worldwide credit crisis, which could reduce the available financing for the country's capital intensive industries (Table 6).

Table 6: Results of SWOT Analysis for Kazakhstan

Strengths	Weaknesses
<ul style="list-style-type: none"> • High economic growth rate, with average annual GDP growth rate of more than 9% since 2000; • Rich resource base, consisting of mineral, crude oil, natural gas, and coal deposits to support industrial production, mining, and export sectors; • Strategic geographical position to link traffic between Europe and Asia; and proximity to the PRC, India, and the Russian Federation, three of the BRIC's^a rapidly developing economies that can provide low-cost imports and access to huge markets for its exports; • A more developed economic and transport capability relative to other countries in the region; and • Rail systems that are more developed and cost-effective because the railway industry was opened up to private investment. 	<ul style="list-style-type: none"> • Trade and transport systems that are not well-connected to major markets and international systems; • Relatively low productivity levels in the manufacturing industry; • Insignificant local consumer demand for goods and services (small economy); • Unbalanced economic development where fixed capital has deteriorated in remote areas or in areas with no oil and mineral deposits; • Large land surface area that requires more infrastructure investments to increase rail and road density; • Being landlocked with no direct access to sea ports, thus, needing to rely on other countries for transit and sea routes; and • Low expertise in containerization, resulting in limited access to overseas markets for its export products.
Opportunities	Threats
<ul style="list-style-type: none"> • Presence of the new transit route from the PRC to Eastern and Western Europe that passes through it and other Commonwealth of Independent States, which offers an alternative route to the trans-Siberian railways that is expected to take 30% less than the time via the conventional route through Siberia; • Proximity to India, the PRC, and the Russian Federation, three of the BRIC's rapidly developing economies that can provide it access to low-cost imports and huge markets for exports; and • The current boom in oil and commodities prices, which increases its export revenues, enabling it to finance infrastructure development. 	<ul style="list-style-type: none"> • Worldwide credit crisis, which could reduce the available credit and capital for its capital-intensive industries; • Absence of customs and tariff agreements with neighboring countries, to harmonize customs procedures; • Absence of direct access to world trading markets; • Lack of rolling stocks that are compliant with international standards; and • Insufficient transport services that limit the country's ability to trade in international markets.

BRIC = Brazil, Russian Federation, India, and China, People's Republic of; GDP = gross domestic product; PRC = People's Republic of China; SWOT = strengths-weaknesses-opportunities-threats analysis.

^a BRIC refers to the group of Brazil, Russian Federation, India, and (the People's Republic of) China, the most dynamic and fastest-growing economies in the world today.

Source: Authors.

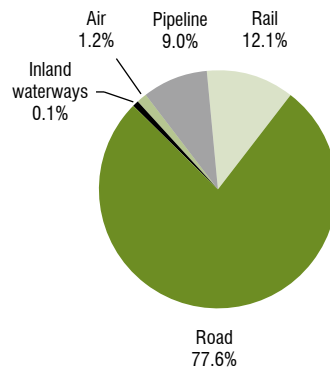
Assessment of the Transport and Logistics Sectors

Transport Sector

Its vast territory and landlocked position and the uneven spatial distribution of its population and natural resources, make Kazakhstan's transport system one of the most sizeable in the world, and its economy highly dependent on transport networks. Its transport system also provides the opportunity to take full advantage of its potential as a transit country between Europe and Asia. This system is comprised of 88,400 kilometers (km) of roadways; 14,205 km of railways; 3,900 km of waterways; and up to 61,000 km of air routes.

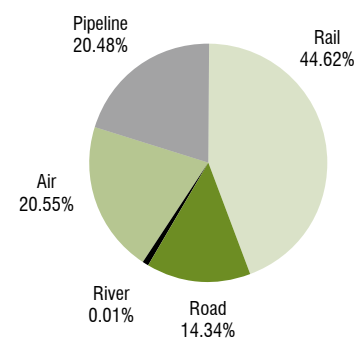
Kazakhstan's total cargo load in 2007 amounted to 2,148 million tons. Its total freight turnover was 428 billion tons-km. The road and rail transport systems carried the main bulk of this cargo load, accounting for nearly 90% of total load. Shares of different transport modes in total cargo load and freight turnover are illustrated in Figures 6 and 7.

Figure 6: Percentage Share of Each Transport Mode to Total Cargo Load in Kazakhstan, 2007



Source: Ministry of Transport and Communications.

Figure 7: Percentage Share of Each Transport Mode to Total Freight Turnover in Kazakhstan, 2007



Source: Ministry of Transport and Communications.

Tables 7 and 8 present the rate of change for the cargo load and freight turnover for each transport mode. Cargo loads transported through road and rail have steadily increased over 2001–2007, with average growth of 8% and 6% per year, respectively. Meanwhile, freight turnover increased by 10% per annum in the road network and 6% per annum in the railways. In the country's road network, growth rate of freight turnover was higher than that of transported cargo. This divergence indicates that while the tonnage of freight carried over road has been decreasing,

the distance through which it is carried has been extended. This could also indicate that more transporters carry freight over road for longer distance.

Table 7: Growth Rate of Cargo Load Transported by Each Transport Mode in Kazakhstan, 2001–2007 (%)

Transport Mode	2001	2002	2003	2004	2005	2006	2007	Average
Rail	6.98	(2.77)	13.43	6.36	3.29	10.87	5.55	6.24
Road	9.66	13.22	8.11	9.60	4.59	4.73	5.36	7.90
Inland waterways	11.11	0.00	0.00	40.00	14.29	62.50	0.00	18.27
Air	(34.03)	67.37	52.20	(24.79)	13.74	(20.29)	55.76	15.71
Pipeline	3.24	(7.47)	25.26	8.01	7.02	0.10	0.88	5.29

() = indicates negative value.

Source: Ministry of Transport and Communications.

Table 8: Growth Rate of Freight Turnover in Each Transport Mode in Kazakhstan, 2001–2007 (%)

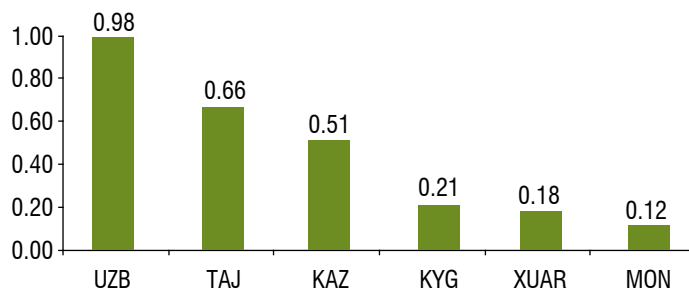
Transport Mode	2001	2002	2003	2004	2005	2006	2007	Average
Rail	8.56	(1.92)	10.97	10.70	5.14	11.23	0.05	6.39
Road	6.45	13.94	6.91	9.20	7.29	14.23	14.31	10.33
River	(4.76)	25.00	40.00	14.29	12.50	(55.56)	25.00	8.07
Air	(62.81)	20.14	76.95	(27.99)	44.54	(27.71)	26.04	7.02
Pipeline	11.20	8.66	14.47	7.39	1.98	8.04	5.40	8.16

() = indicates negative value.

Source : Ministry of Transport and Communications.

Although its railways and roadways are lengthier in comparison with those of its CAR neighbors, Kazakhstan has lower rail and road densities. Its rail density is 0.51 km per 100 km² while its road density is 3.24 km per 100 km². Meanwhile, Uzbekistan’s rail density is 0.98 km per 100 km², and Tajikistan’s is 0.66 km per 100 km². Tajikistan’s road density is 21.37 km per 100 km², and those of Uzbekistan, the Kyrgyz Republic, and the XUAR are 18.55 km, 17.01 km, and 5.40 km per 100 km², respectively (Figures 8 and 9).

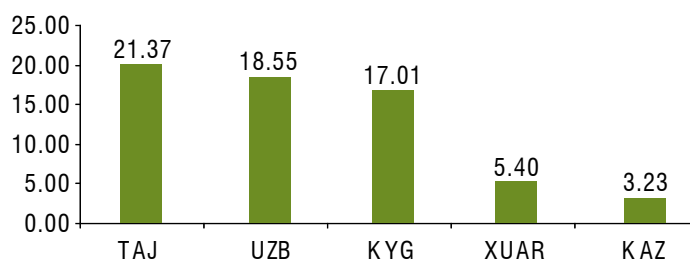
Figure 8: Rail Density in Selected CAR Countries and the XUAR, 2007 (km per 100 km²)



CAR = Central Asia Region, KAZ = Kazakhstan, KYG = Kyrgyz Republic, MON = Mongolia, TAJ = Tajikistan, UZB = Uzbekistan, XUAR = Xinjiang Uygur Autonomous Region.

Source: ADB Reports. 2007. Consultants’ analysis.

Figure 9: Road Density in Selected CAR Countries and the XUAR, 2007 (km per 100 km²)



CAR = Central Asia Region, KAZ = Kazakhstan, KYG = Kyrgyz Republic, TAJ = Tajikistan, UZB = Uzbekistan, XUAR = Xinjiang Uygur Autonomous Region.

Source: ADB Reports. 2007. Consultants' analysis.

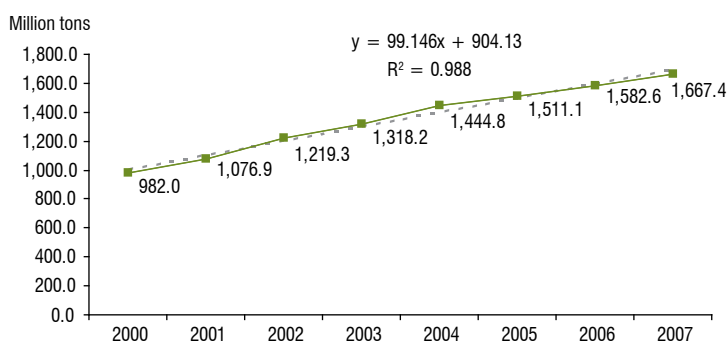
Kazakhstan's transport system is characterized by transport networks in poor condition, with obsolete infrastructure and outdated technology. This has resulted in transport costs accounting for 8%–11% of the final cost of goods transported through railways and roadways, respectively. In industrialized countries, transport costs normally make up 4%–4.5% of total cost.

To address deficiencies in the transport system, President Nursultan Nazarbayev announced in October 2007 that the government would implement 80 investment projects worth \$30 billion in 2007–2015. This investment program involves the laying of 1,600 km of new railway tracks, electrification of 2,700 km of existing railways, and building or repairing 50,000 km of roads across the country. The government also intends to modernize airport infrastructure, develop the merchant fleet, and expand port and navigable waterway infrastructure.

Rail Transport

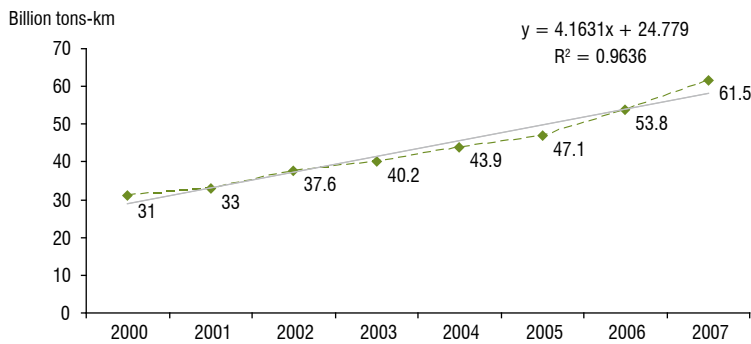
Kazakhstan railways, measuring 14,205 km in length, plays an important role in transporting goods over long distances, typically 1,000 km or more. Freight volume transported through this mode has been growing from 2000 to 2006 at an average annual rate of 6.4% (Figure 10). Generally the same trend can be observed for the volume of cargo turnover for railways (Figure 11).

Figure 10: Freight Volume Transported by Rail in Kazakhstan, 2000–2007 (million tons)



Source: Ministry of Transport and Communications.

Figure 11: Cargo Turnover by Rail in Kazakhstan, 2000–2007 (billion tons-km)



Source: Ministry of Transport and Communications.

About 30% or 4,143 km of the railways system consists of electrified tracks. Locomotives number 5,192 and rail wagons 59,954. Cargo loads consist mainly of heavy machinery and bulky commodities (high volume and low value). Compared to its neighboring countries, Kazakhstan has superior rail infrastructure. The tracks are better maintained due to more funds available for maintenance. The government also purchased new locomotives and railway tracks.

Kazakhstan also has container block train services. Table 9 shows the routes for each container block train service. Routes 2 and 3 are currently nonexistent but have been planned to commence operations in 2010.

Table 9: Transit Rail Routes in Kazakhstan, Actual and Projected Number of Trains, 2006 and 2010

Route	Origin and/or destination	Frequency (trains per year)	
		2006	2010
1	Lianyungang–Urumqi–Dostyk–Almaty	576	1,237
2	Lianyungang–Urumqi–Dostyk–Astana	0	104
3	Lianyungang–Urumqi–Dostyk–Shymkent–Aktau	0	104
4	Lianyungang–Urumqi–Dostyk–Astana–Ozinki–Moscow	3	52
5	Nakhodka–Novosibirsk–Almaty	103	221
8	Lianyungang–Urumqi–Dostyk–Asake (Uzbekistan)	9	13

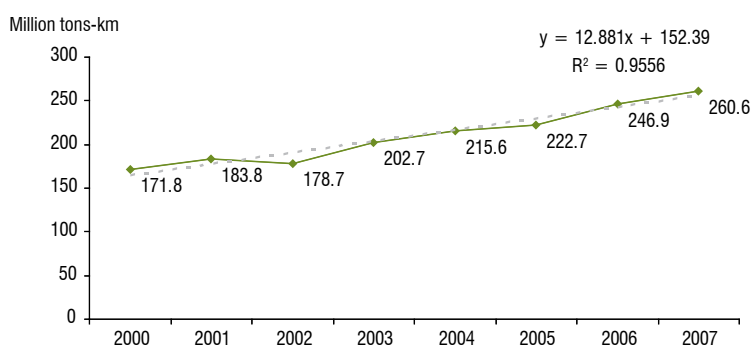
Source: Japan International Cooperation Agency study. 2007.

In the government’s overall plan, investments in rail development include the construction of the Mangishlak–Bautino (135.1 km; T22,759 million) and Eralievo–Kurik (14.4 km; T7,568 million) routes, and the electrification of the 392-km Makat–Kandygash line.

Road Transport

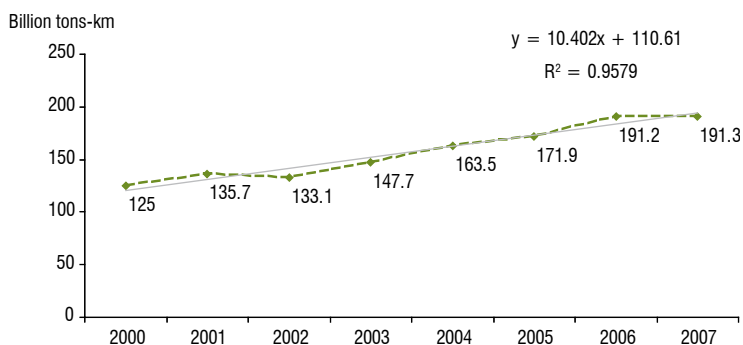
Kazakhstan has 83,720 km of roads, mainly of Class III standards. Freight volume transported through these roads is 6.4 times more than that by rail, and has increased by an annual average of 8.3% (Figures 12 and 13).

Figure 12: Freight Volume Transported by Road in Kazakhstan, 2000–2007 (million tons)



Source: Ministry of Transport and Communications.

Figure 13: Cargo Turnover by Road in Kazakhstan, 2000–2007 (billion tons-km)



Source: Ministry of Transport and Communications.

Of Kazakhstan's 13 oblasts, East Kazakhstan, Almaty, Karaganda, and Kotanay have the longest road networks. East Kazakhstan has 11,060 km of road, accounting for 13.2% of the total road system. Almaty, Karaganda, and Kotanay account for 11.3%, 10.4%, and 9.5% of the total, respectively (Table 10).

Table 10: Length of Roads by Oblast, 2000–2006 (km)

	2000	2001	2002	2003	2004	2005	2006
Akmola	7,890	7,846	7,846	7,846	7,858	7,851	7,851
Aktubinsk	5,435	5,435	5,435	5,435	5,435	5,157	5,157
Almaty	9,535	9,535	9,535	9,471	9,471	9,471	9,471
Atiray	2,279	2,279	2,279	2,279	2,279	2,207	2,253
West	4,565	4,565	4,576	4,582	4,761	4,577	4,577
Kazakhstan							
Zhambul	4,104	4,112	4,112	4,112	4,112	4,730	4,730
Karaganda	8,634	8,634	8,634	8,721	8,775	8,740	8,743
Kostanay	7,523	7,786	7,801	7,801	7,927	6,989	7,924
Kylordar	2,612	2,612	2,642	2,645	2,655	2,970	2,715
Mangistay	2,324	2,378	2,467	2,843	2,844	2,209	2,209
South	5,135	5,166	5,174	5,174	5,174	5,124	5,113
Kazakhstan							

continued on next page

Table 10 (cont.)

	2000	2001	2002	2003	2004	2005	2006
Pavlodar	4,699	4,720	4,739	4,673	4,673	4,732	4,895
North Kazakhstan	7,003	7,007	7,007	7,020	7,019	7,022	7,022
East Kazakhstan	9,593	10,563	10,733	11,032	11,129	11,039	11,060
Total	81,331	82,638	82,980	83,634	84,112	82,818	83,720

Source: Ministry of Transport and Communications.

Many use road transport due to its flexibility. In Kazakhstan, the permissible dimensions for standard road transport are 18.5 m (length), 2.6 m (width), and 4.0 m (height). This measurement includes the cargo and the towhead. Total load is 38 tons. Vehicles require a special permit when transporting oversized cargoes, which by definition is longer, wider, or taller than the above specifications. The permit fees depend on distance and the load.

A significant development in road transport is the planned Western Europe–Western [People’s Republic of] China project, a huge road rehabilitation and upgrading collaboration among many organizations that would involve 2,624 km of roads in Kazakhstan.³ The entire route starts from Orenburg (Russian Federation) and ends at Korgas (the PRC), passing through five Kazakh oblasts (Table 11).

**Table 11: Length of Road to be Upgraded by Oblast
under the Western Europe–Western [People’s Republic of] China Project**

Oblast	Length (km)	%
Aktobe	632.19	27.90
Kyzylorda	610.42	26.92
South Kazakhstan	294.00	12.97
Zhambyl	426.90	18.83
Others	303.30	13.38
Total	2,266.81	100.00

Source: KazRoadProjects.

The company KazRoadProjects was engaged to conduct a feasibility study on the engineering and technical proposals for the road project. After the study, it determined that of the 2,624-km project scope, 2,266.81 km require improvement. Total project cost is estimated to be T920 million.

Kazakhstan’s roads are classified mainly as Class III or lower. However, under the Western Europe–Western [People’s Republic of] China project, the new roads that would be constructed will mainly be concrete and asphalted, of Class I and II qualities, and compliant with international standards and thus good enough for higher volumes of transit traffic.

The project will also have a number of new roads detouring around existing cities. The objectives for this strategy are manifold. First, the new roads will complement the current network. Second, they will provide alternatives for transit traffic to bypass city centers and avoid traffic

³ ADB is involved in this project and is planning a \$550-million financing for the stretch of road linking Shymkent to Almaty in southern Kazakhstan.

congestions. Third, they will increase the road density of the country. Fourth, the new design is actually a shorter alternative to current roads, increasing transport efficiency because of shorter distances. For instance, in the Zhambyl region, there is a road that cuts through the Kyrgyz Republic (near Bishkek). A new road will be constructed in Kazakhstan to bypass customs at the border.

The estimated cost of road construction under the project is \$1,000 per km. The project has an internal rate of return of 12% and a positive net present value. Construction will occur in three phases. The first will be from 2009 to 2012, the second from 2012 to 2015, and the third in 2016.

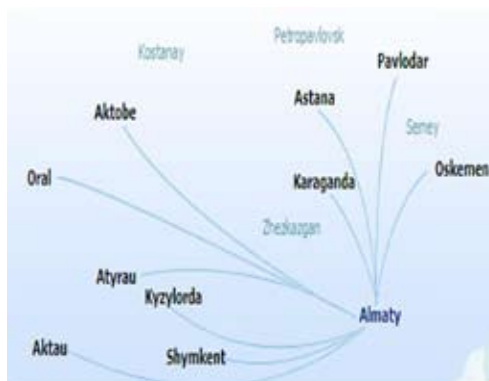
Another ongoing project of significance is the rehabilitation of Bishkek–Almaty route. Under this project, 100 km of roads in the Russian Federation and 70 km in Uzbekistan will be improved. Four-lane highways will be 27.5 m wide, while two-lane highways will be 15 m wide.

Air Transport

In 2007, Kazakhstan achieved a remarkable feat of transiting 4.5 million passengers through its airports, an increase of 36% over the 2006 level. That same year, the volume of freight handled by the airports increased by 55.8% or four-folds more than the 15.7% average growth rate from 2001 to 2007.

This rapid growth in the aviation industry is due to several factors. Kazakhstan has relatively well-established hubs at Astana, Almaty, and Atyrau, which facilitate the flow of goods in northern, southern, and western regions, respectively (Figure 14). The national carrier—Air Astana—continuously invested in modernizing its assets, including air navigation systems and radio equipment. The government is proactively seeking and negotiating new air routes to major cities in the world, and facilitating the country’s accession to major international agreements and conventions such as the World Convention on International Transportation Through Air. Air Astana also aggressively used information and communication technology in transforming its airline operations. It is working on introducing computerized systems for registering and monitoring cross-border movement of airfreight. Finally, eight domestic airports—Astana, Almaty, Atyrau, Aktobe, Ust-Kamenogorsk, Pavlodar, Shymkent and Zhezkazgan—now meet the requirements of the International Civil Aviation Organization.

Figure 14: Kazakhstan’s Domestic Air Connectivity



Source: Air Astana.

Air Astana flies to 12 major cities, namely Amsterdam, Frankfurt, Hanover, London, and Moscow in Europe; Dubai, Delhi, Istanbul, and Antalya in Eastern Europe, South Asia, and the Middle East; and Bangkok, Seoul, and Beijing in North and Southeast Asia. Its flights to these cities start and end mainly in Astana and Almaty although direct flights to and from Kostanai, Karagandy, and Atyrau are also possible (Figure 15).

Figure 15: Kazakhstan’s International Air Connectivity



Source: Air Astana.

Future developments in Kazakhstan’s aviation industry include the reconstruction and upgrading of airports. There will be a new airport complex in Astana and a modern passenger terminal is being built in Almaty. New runways are also being constructed in Atyrau and Aktobe.

Pipeline Transport

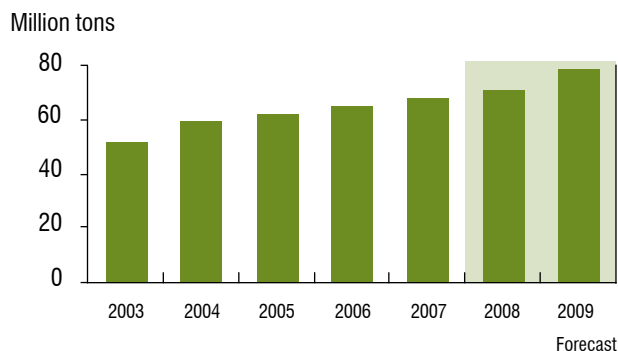
A key consideration in Kazakhstan’s transport strategy is how to transport oil and gas to markets in the east, principally the PRC, and the west. With 29 billion barrels of proven crude oil reserves, the country’s oil export can grow at an annual rate of 13.9% (Figure 16). Various factors support this projection. The most important is the rapid pace of development of new oil and gas fields, and strong demand from both east and west. The forecast is also underpinned by strong economic growth and a particularly dynamic future for foreign trade over the next five years, both of which will increase the domestic demand for oil and gas. All these developments provide strong support for building an extensive and reliable pipeline system to increase the country’s capacity for transportation.

The most significant pipeline development in the country is the construction of the Baku–Tbilisi–Ceyhan line through the Caspian Sea. Kazakhstan and Azerbaijan play a key role in this project, which will pave the way for the trans-Caspian flow of oil from Aktau.

The project involves the construction of port facilities and pipelines at Aktau. It is expected to handle throughput of 23–56 million tons of crude oil per year. To supplement its transport capacity in the face of increased demand for transport facilities, Kazakhstan plans to purchase seven large tankers with capacity of more than 60,000 tons of crude oil. Financing for the whole project will come from external investments.

In the east, oil pipelines linking the Tenkiyak field to Kumbol has started operations and will send more oil to the PRC.

Figure 16: Actual and Projected Annual Output of Crude Oil in Kazakhstan, 2003–2009 (million tons)



Source: Agency of Statistics of the Republic of Kazakhstan.

Logistics Sector

Kazakhstan has 73 enterprises offering logistics-related services. These include multimodal transporters, customs brokers, integrated service providers, and freight forwarders. They can be categorized into

- express and courier companies,
- freight forwarders, and
- manufacturers and/or traders.

Express and courier companies are mainly multinational corporations, such as DHL and Pony Express, whose representative offices liaise with overseas offices and oversee domestic distribution. They own warehousing facilities and run a fleet of trucks. For example, Pony Express owns a 4,000 sq m warehouse in Almaty and operates 30 vans for door-to-door deliveries. Each vehicle is equipped with global positioning system and satellite communications, allowing real-time track and trace capabilities. However, this is more of an exception and not the norm for most transporters.

The second group of logistics players consists of local-licensed customs brokers, freight forwarders, and multimodal transporters. They are all members of the Union of International Road Carriers of the Republic of Kazakhstan (KazAto). Many of them are competent in providing integrated solutions for customers. Their usual mode of operations involves shepherding cargo through customs clearance and then sending it by rail or road to the final destination.

The third group includes manufacturers or traders in Kazakhstan, either foreign-owned companies such as the Xinjiang Yema Company or locally owned enterprises such as the Tsesna Investment Corporation. They run their own fleet of trucks and own self-operated warehouses for managing the supply chain.

Although Kazakhstan lacks logistics professionals, as do the rest of the CAR countries, it is the transport hub in the region. Companies like DHL send their managers to Almaty for training and upgrading of skills.

Five learning institutions offer diploma courses on logistics. They are either public institutions such as the Kazakh Academy of Transport and Communications or private schools such as the KazAri (Kazakh Automobile Road Goncharov Institute). A 4-year diploma course can cost \$4,000. For citizens, the government offers an education grant of \$2,000 per student. Each school trains about 150 students, of which 5% come from overseas, mostly from Pakistan.

Any discussion on the logistics sector will not be complete without reference to the national representative of the logistics industry, KazAto, which represents the interests of the country's road transporters, and the national association for the issuance of Transport Internationaux Routiers (TIR) carnets. It has 200 road transporters as members and is a member of the International Road Union. It also represents Kazakhstan in international conventions, meetings, and other forums on transport logistics.

The TIR, which is a system that facilitates cross-border movements by providing a single procedure and a guarantee chain from the point of departure of goods to the point of destination, is widely accepted in Kazakhstan and in the whole of the CAR. A two-way TIR carnet—the transit document that allows cargo to move through transit countries without the payment of tariffs—can be purchased for \$95 in Kazakhstan through the KazAto. A non-member of KazAto will need to put up a deposit of \$8,000 for a single transport journey across the border. Although the TIR is generally working smoothly and simplifies cross-border movements, there are still isolated incidents involving unnecessary inspections in the Russian Federation. Inspections can be called for without reason or evidence by Russian customs officers.

No other international or regional protocols can be an effective alternative to TIR in the short term. Without TIR, the carrier or shipper would need to put up a large sum of money as guarantee or bond to ensure that the cargo being transported will not be off-loaded in a transit country. When fined, a company can pay as much as \$50,000. The TIR system imposes a minimal entry requirement for members to use the carnets. However, the delivery trucks must satisfy the minimal technical standards, which can be stringent. For example, the trucks' engines must be of a Euro-3 standard that stipulates low noise and gas emissions. Companies are fined if their trucks violate those requirements.

Kazakhstan has a number of logistics centers, free-trade zones and exhibition marketplaces to facilitate production, warehousing, transportation and final sale of products. It has two famous logistics centers; the first one is the High Tech Logistics Centre in Almaty. The center is run by a Russian–Kazakh joint venture company and has two sites for warehouses, one measuring 35 hectares in size and the other one, 130 hectares. In the smaller site, two warehouses are operational with six-high pallet racks that are integrated with the rail connection. The warehouses are built for the deconsolidation of imported goods from the Russian Federation and Europe, after which the goods are redistributed within the country or to other parts of the CAR. They are equipped with a modern warehouse management system and bar code capability.

The second iconic project is the DAMU logistics center located on 210 hectares of land in the Iliyskom area, between Dmitrievskim and the Kapshagayskoy highway, 10 km away from Almaty. Run by the Amanat Invest Group, its construction started in January 2007. It offers integrated logistics services such as storage, handling, transport, customs clearance, and repacking. The entire center has 100,000 pallet spaces, one of the largest in the country.

Another supply node consists of exhibition complexes. These complexes are facilities that showcase a variety of products for wholesalers and to a lesser degree, retail customers. Goods usually originate from the PRC and the Russian Federation, and then trucked to the complexes, which have warehouses and trucking depots for loading and unloading operations. The biggest one in Almaty is called Adem Park.

The Adem Complex and Al Farabi Wholesale Centre



The Adem complex, which consists of huge buildings, serves as a wholesale center. Many of the small shops inside the buildings sell goods made in the PRC, such as garments.



Adem has a logistics compound consisting of small storage places. These are simple structures. Each compartment is about 50m². Unfortunately, on the day of visit, no unloading and loading activities could be seen.



Outside the Al Farabi Wholesale Centre, workers are loading goods from Urumqi, PRC to a delivery truck bound for Kostanai.

A potential improvement in the center is a drivers' motel. Usually, drivers on transit will wait for 1 or 2 days before driving the truck back to Korgas. During their stay, drivers can rent a room for T250 a night in Almaty City. The motel will provide convenience if such a facility is offered. The consultants observed that there is enough space for this motel in the facility.

Challenges

This section highlights the impediments to cross-border trade in Kazakhstan. Relatively speaking, Kazakhstan has a superior logistics system compared to other countries in Central Asia. Its equipment, such as railway tracks and locomotives, are better maintained. It has modern logistics centers in key cities. The capability of logistics companies in Kazakhstan to offer regional and domestic transport is also higher. Nevertheless, the potential of Kazakhstan as a transit nation will never be fully realized if impediments are not addressed and resolved. These impediments are described here along three areas: (i) physical infrastructure and transport facilities, (ii) institutional policies and regulations, and (iii) operational capability of the logistics industry.

Constraints in Physical Infrastructure and Transport Facilities

Constraints in the Rail Transport System

As far as infrastructure and transport facilities in the region are concerned, Kazakhstan has some advantages. Its railway tracks are better maintained, with railway cargo terminals built along strategic nodes.⁴ Of the 14,205 km of railway tracks, 4,143.5 km are electrified. The country also has good rolling stocks for railway transport. It has 5,192 locomotives; 59,954 wagons; and 7,080 rail platforms, enabling it to better handle larger cargo volumes.⁵

However, the capacity of the rail transport system is compromised by the lack of facilities in certain important rail nodes. In cities like Karagandy, Shymkent, Aktobe, and Aktay, rail freight has increased steadily and cargo terminals and warehouses are running at near capacity levels. Storage capacity in these cities needs to be expanded in the near future.

Since the Russian Federation and the PRC are important trading partners for Kazakhstan, rail transport issues with these two countries must be attended to. Although rail tariffs in the Russian Federation are lower than those in PRC, and therefore more popular with local companies, crossing the border with the Russian Federation entails additional costs for shippers. For example, if a rail cargo travels from Aktobe to Uralsk, it needs to pass through Russian border at Zhaisan. The Russian Federation's customs demand \$500–\$600 for such transit. Unfortunately, there is no viable alternative as road conditions in the northwestern oblasts are poorly maintained.

Rail transport with the PRC faces some constraints, too. In theory, the same cargo sent over Russian railways will take longer as the distance traveled is longer. It takes 30 days for the Russian Federation's railways to transport cargo from Astana in Kazakhstan to Nadjhoda in the Russian Federation. In comparison, it takes PRC railways 25 days to transport cargo from

⁴ Almaty Station and Mankent Station are the biggest in terms of terminal size and cargo throughput.

⁵ Data from the Kazakhstan Ministry of Transportation and Communications.

Astana to the port of Lianyungang. However, PRC railways have more stringent regulations and documentation requirements, which Kazakh companies feel are much more complicated. Harmonizing customs procedures and documentation requirements will address this issue.

A specific challenge is the Dostyk⁶ railway terminal at the PRC–Kazakhstan border. Operations in this terminal started in 1992 after the PRC and Kazakhstan signed an agreement to open the border at this node. Since then, freight volume has risen rapidly due to the increasing trade between the two countries. While the PRC has invested aggressively in Alashankou to increase capacity and efficiency, the same rate of investment has not been seen from Kazakhstan. Thus, Dostyk has become a bottleneck in the Urumqi–Alashankou–Dostyk–Aktogai–Almaty route. Due to differences in railway gauges, goods need to be transloaded from PRC’s rail wagons to Kazakhstan’s rail wagons, using machines in Dostyk. Transloading is required for the Dostyk station because the PRC uses international gauge (1,453 mm) tracks while Kazakhstan uses the former Russian standard tracks of 1,520 mm. Thus, PRC’s goods entering Dostyk will need to be lifted by machine to Kazakhstan’s rail axle and wagon to be able to continue the journey. Dostyk is also an important node as it lies in Central Asia Regional Economic Cooperation (CAREC) Corridor 1, Transport Corridor Caucasus–Europe–Central Asia (TRACECA) route, and the new trans-Asia–Europe railway. Increasing the capacity of this railway terminal will attract shippers to this transit route.

Constraints in the Road Transport System

Kazakhstan has virtually no Class I and II roads, and its road quality is not consistent. Road surface in the eastern region is relatively good. In the western region, however, it needs upgrading, with the worst problems being in two main areas: the 700 km stretch of Kostanai–Aktobe–Uralsk, and the stretch between Atyrau and Aktau. The economic and construction boom fueled by the oil exploration activities have put additional stress on the road networks in the western region. Interviews done by the TA team showed that transport enterprises want the government to invest in the construction of more roads where none is available, or to improve the current highways to handle higher road-capacity demand.

Besides the low quality and capacity of roads in the north–western region, the existence of enclaves, which requires the crossing of borders, causes additional cost and time delays in certain transit routes. A part of the key Shymkent–Taraz–Almaty route that traverses three Kazakh oblasts lies in the Kyrgyz Republic (through Bishkek).

Another problem is empty return cargo. Like Xinjiang, Kazakhstan has a large land area and, thus, low population density. Trucks are forced to travel long distances, and the probability of having products to send back from such a sparsely populated area is low. Most road cargoes move from east to west. When delivery trucks return eastward, most of these are either empty or only partially filled. This inevitably raises the cost of transportation.

⁶ Dostyk is formerly called Druzba. The PRC’s inland terminal is called Alashankou. This inland border post is one of the railway terminals that handle the most cargo freight. Currently the second busiest border post, it is estimated to overtake Manzhouli in the PRC’s Inner Mongolia province in the near future in terms of cargo volume handled.

Constraints in the Air Transport System

Air transport companies lament the presence of only one carrier—Air Astana. This limits innovation and tariff competitiveness. This situation is a result of a population that is just about 15 million and hence, is unlikely to support two carriers. Improvement must then come from better customer service and innovation. Generally, service has improved over the years. However, airport management needs to improve its handling of inquiries, like routes and tariffs. Sometimes, inquiries are attended to only after a long time or not addressed at all.

Impediments Due to Operating Difficulties

Lack of Expertise in Containerization

Although Kazakhstan's transport companies are very familiar with the procedures in railway transport, especially along routes that traverse the Russian Federation, the level of integration of the country's transport system with worldwide transport networks via containers is very low. A number of local companies expressed a high degree of discomfort having to send cargo through standard 20' or 40' ISO containers as they are unfamiliar with the technical and documentation requirements. This poses a problem as shippers who need to import or export using containers have limited choices in finding competent freight agents. The lack of freight agents offering containerized transport services results in higher costs for such services.

High Import Tariff for Containers

Another cost factor is the import tariff placed on containers. Kazakhstan's customs increased the tariff per container from \$200 to \$400. This discourages the use of containers and affects bilateral trade. Interviews with operators in the Al Farabi marketplace revealed that the center used to handle an average of 20 per day of 20' containers. This number has been reduced to just two or three.

High Cost of Containerized Transport

The limited use of containers results in higher transport costs, especially for traders and merchants who want to expand to overseas markets. The relatively few containers in Kazakhstan increases the cost of finding one and of engaging a logistics service provider competent to handle such containers. Box 1 presents a case study of a local company seeking to export wheat flour and is faced with this problem.

Box 1: A Case Study on Wheat Export and Containerization

Tsesna Investments is a publicly traded firm and one of the 30 leading business enterprises in Kazakhstan. It is a conglomerate that has major business interests in agribusiness, construction, food and beverage, hotels, and financial services.

continued on next page

Box 1 (cont.)

Its agribusiness division's important activity is wheat flour production. Tsesna buys wheat grains from local farmers and processes these into higher-value products such as wheat flour, which is the critical material for producing bread, dough, and other food products. Kazakhstan's wheat is generally better in quality than those of other Central Asia Region countries. While its wheat is 40%–50% glutinous, those of its southern neighbors are only 15%–20% glutinous. The oblasts that give the best wheat quality are Pavlorda, the North Kazakhstan region, Akmola, Kostanai, and Aktobe.

With its high-quality wheat, Kazakh flour should have high demand in overseas market. However, Kazakhstan's volume of wheat flour exports is actually quite limited outside of the CAR. This situation results from the way flour wheat is exported: the flour is put into 40-foot containers, loaded onto rail wagons, and sent by train to Lianyungang via the inner provinces of the PRC. It is then loaded into ships and transported to Korea.

Using 40-foot containers is not the most economical way of transporting wheat. The maximum payload for a 40-foot container is 26 tons while that of a standard rail wagon is 64 tons. If Tsesna can transport wheat flour by rail for the entire land transport route, it can transport more tonnage to Korea, thus, reducing its transport cost. However, the port at Lianyungang only accepts container cargoes and offers neither transloading nor storage services. Thus, Tsesna is forced to send its wheat flour by 40-foot containers. The Tsesna representative, with whom the TA team consulted, estimated that while the export price of the wheat flour is \$200 per ton, its transport cost using containers is \$500 per ton, far higher than the product price itself. Lower transport costs will result in higher competitiveness in international markets.

Other exporters and trading firms are likely to face the same challenges as that of Tsesna.

The cost of transporting wheat flour in 40-foot containers can be reduced if the level of container use is increased in Kazakhstan. The low use of containers means that the number of containers flowing into Kazakhstan is low, and consequently, the cost of finding a container and engaging a competent freight agent will be higher. If more goods are transported using standard containers, the cost of exporting through containers to seaports can be reduced. As 80%–90% of goods are moved by sea freight where containers play an influential role, Kazakhstan cannot resist this trend to integrate with the world transport systems.

Source: Authors.

High Fees and Complex Procedures for Visas

Kazakh drivers can drive to other countries without visas, except to Turkmenistan and the PRC. The visa application fee for Turkmenistan is \$75 per entry and \$291 for multiple entries good for 3 months. For the PRC, the fee is \$60 per entry and \$200 for multiple entries good for 1 year. Generally, a visa is needed to enter most European countries. The time needed to apply for visas is also long because of processing inefficiencies and/or complex processes and numerous documentary requirements.

Training and Human Resource Development Needs

The total value of the transport and communication sector's gross domestic product (GDP) will rise to \$14.22 billion in nominal terms by 2012, representing 7.4% of Kazakhstan's total GDP. This sector employed 519,000 or 7.2% of the labor force in 2007. This figure is projected to fall slightly to 516,000 by 2012, mainly because Kazakhstan has a contracting population, but will continue to account for 7.2% of the total. These data underlie two important points. First, since it employs a large proportion of the labor force, the sector's productivity will be crucial in the country's attainment of its GDP goals. Second, the supply of professionals may not meet demand given the country's growth aspirations. To meet the gap, Kazakhstan will have to increase productivity in the sectors while attracting appropriately skilled foreign workers into the country.

Currently, four established institutions in Almaty provide training and education in logistics and produce graduates trained in transportation. However, no training is available in such areas as integrated logistics, supply chain management, innovative technological applications, and International Freight Forwarders Association (FIATA) and/or International Air Transport Association (IATA)-related subject matters. These courses could be developed and then marketed to both local and international students.

Impediments due to Institutional Policies and Regulations

Unfavorable Customs Levies

A change in the levy for exports raised the cost of doing business in Kazakhstan, especially for exporters of heavy machinery and equipment. Previously, export levies were based on volume, at \$250 per square meter of cargo. This was changed, with levies now calculated based on weight, at \$600 per ton. This new calculation makes it more costly for shippers of heavy machinery, such as the Xinjiang Yema, a PRC-based construction equipment manufacturer, which claimed that transport cost has increased tremendously after the new rule was implemented.

Burdensome Customs Procedures

Getting through customs is complicated and adds to the time and cost spent by both importers and exporters. For a twenty-foot equivalent unit (TEU), an exporter spends 20–54 days for document preparation, 23 days for customs clearance and technical control, 11 days for ports and terminal handling, and 26 days for inland transportation and handling. These also cost the exporter \$2,730. Meanwhile, it would take an importer 33–53 days for document preparation, 16 days for customs clearance and technical control, and 4 days for ports and terminal handling. The process would also cost \$2,780 (Tables 12 and 13).

Table 12: Duration and Cost of Export of a TEU from Kazakhstan, by Procedure, 2007

Nature of Export Procedures	Duration (days)	Cost (\$)
Documents preparation	20	200
Customs clearance and technical control	23	200

continued on next page

Table 12 (cont.)

Nature of Export Procedures	Duration (days)	Cost (\$)
Ports and terminal handling	11	380
Inland transportation and handling	26	1,950
Total	89	2,730

Source : World Bank. 2008. *Doing Business in Kazakhstan*.

Table 13: Duration and Cost of Import of a TEU into Kazakhstan, by Procedure, 2007

Nature of Import Procedures	Duration (days)	Cost (\$)
Documents preparation	33	100
Customs clearance and technical control	16	200
Ports and terminal handling	4	380
Inland transportation and handling	23	2,100
Totals	76	2,780

Source : World Bank. 2008. *Doing Business in Kazakhstan*.

Frequent Changes in Customs Laws

Private enterprises would like to see more stability in customs laws. Frequent changes in requirements and tariffs make planning difficult. The customs laws of Kazakhstan have been changed as recently as April 2008.

Unofficial Payments

Anecdotal evidence suggests that unofficial payments are required at border-crossing posts. For example, Kazakhstan's customs authorities are said to collect unofficial payments of €50 at Korgas when PRC shippers send items to Kazakhstan.

Limitations in Banking and Finance

Some PRC companies expressed the desire to have more PRC banks operate in Kazakhstan. It must be noted that few years back, no PRC banks were operating in the country. The International and Commercial Bank of China now operates mainly in Almaty. The need for trade financing and remittance services is deemed essential for PRC companies.

The second major problem is the high cost of financing, which deters companies from reinvesting and purchasing new equipment such as more fuel-efficient trucks. Commercial loans at Halyk Bank or KazCommercial Bank are charged at 16.5% per annum. With the liquidity and credit crisis in the worldwide financial markets, enterprises will experience greater difficulty seeking financing.

Recommendations

This section describes the methodology for developing a framework for an action plan to improve trade logistics in Kazakhstan. It must be acknowledged that, besides the Asian Development Bank (ADB), several multilateral institutions such as the World Bank, European Bank for Reconstruction and Development, Japan Bank for International Cooperation, United States Agency for International Development, and Islamic Development Bank, have also offered various financial packages and technical assistance to Central Asia Region (CAR) countries. The most significant and recent aid was the joint effort in the Western Europe to Western [People's Republic of] China road project where several organizations will offer loans to Kazakhstan to construct and upgrade more than 2,000 km of road.

Thus, the objective here is not to repeat established action plans but to serve two goals. The first goal is to consider ongoing initiatives and suggest the inclusion of other cities and border posts in their scopes. The second goal is to suggest action plans that are not related to hardware but are formulated to address limitations in operational capability and issues due to policies and regulations. These “soft” issues, such as human resource and information technology systems development, need to be addressed, both on their own and as complement to the investment in the “hard” issues of trade logistics.

Methodology for Developing a Plan Framework

The methodologies used to formulate the recommendations are the following:

1. Review the transport corridors in Central Asia,
2. Analyze demographic and economic patterns,
3. Identify key locations that need greater emphasis,
4. Propose Tiers 1 and 2 locations for the prioritization of investments, and
5. Recommend specific measures to address issues on operational capacity and policies and regulations.

Step 1 outlines the environment that is external to Kazakhstan's transport and logistics sectors—cross-border trade—by taking into account the flow of goods from other countries into Kazakhstan and vice-versa. This will have important implications on the border posts. Step 2 indicates the key oblasts (states) and cities that must be prioritized in Steps 3 and 4 if Kazakhstan is to improve its transport and logistics systems. Kazakhstan is a large country and investment possibilities are infinite. To optimize payoffs from investments, oblasts with demand from population and from economic activities must be considered to justify the addition of transport capacity. Finally, Step 5 addresses institutional and operational issues. The benefits of improved physical infrastructure need to be leveraged and augmented by corresponding

progress in training and development, use of information and communication technology, and reforms in the industry and in government policies.

Implications of Cross-Border Trade and the Major Transport Corridors in Kazakhstan

Implications of Cross-Border Trade

Figure 17 shows the flow of imports and exports between Kazakhstan and its trading partners. It must be noted that the tonnage of goods to Europe, the People's Republic of China (PRC), and the Russian Federation (as part of the rest-of-the-world category) is relatively large, with the export to import ratio being 10:1. This results from the fact that Kazakhstan's export commodities are bulky but have relatively lower value. The trade imbalance between Kazakhstan and the rest-of-the-world causes the capacity imbalance in rail transport to persist. On the side of the border where less bulky commodities originate, empty rolling stocks are often left waiting for enough backload to bring back. This reduces the number of stocks available on the other side of the border, and the lack of stocks increases the demand and cost of such stocks. The cost of storage on the other side of the border also contributes to high transport costs.

Figure 17: Trade Flows Between Kazakhstan and Its Trading Partners, 2006 ('000 tons)



Source: ADB. 2007. Central Asia Regional Economic Cooperation: Transport Sector Strategy Study (TA 6347 REG), TERA International Group, September.

Over the immediate and medium terms, Kazakhstan cannot change the nature of its exports to the rest-of-the-world as this would require fundamental changes in its economy. The only other way for Kazakhstan to mitigate the capacity imbalance caused by its trade imbalance is to

improve the capacity, reliability, and efficiency of its rail links and rail terminals, especially at the Kazakhstan–PRC border. Doing so would reduce unnecessary delays of stocks and ease the shortage in areas where these are needed. Improving road transport will also allow Kazakhstan to offer flexibility in the form of viable alternatives to supplement its rail system. New roads, especially along the Korgas–Almaty route, logistics centers, cargo terminals, and border posts will be needed.

Kazakhstan should support and encourage the PRC’s accession to the Transport Internationaux Routiers (TIR) Convention. This will help Kazakhstan realize its potential as a transit nation and improve its bilateral flow of goods with the PRC.

The export-to-import ratio with the European Union (EU) is also high at 7:1. However, Kazakhstan’s export volume to the continent is much higher than that with the PRC. This means improving cargo turnover by rail can possibly increase the level of trade with the EU. As the distance involved is long, rail will play a dominant function. By promoting the new trans-Euro–Asian railway and making railway tariffs competitive, while streamlining customs procedures, this route can attract more shippers, especially PRC traders who send goods to the EU.

Interestingly, the volume of Kazakhstan’s exports to Japan and Korea are higher than its exports to many of its southern neighbors, despite the two countries’ distance from the country and the need for multimodal transport. Kazakhstan exported 891,000 tons of goods to the two countries in 2006.

Trade with Japan and Korea can also be pointed out by improving transport. In this instance, containerization plays a very important role. As pointed out in the earlier discussion on wheat flour exports, Kazakhstan can ship goods to Korea through Lianyungang only in containers, as the port does not accept railway wagons. The cost of container transport is currently expensive because demand for such services is very limited. The only long-term solution to the high cost of container transport is to encourage more trade with Japan and Korea, and with other countries in Southeast Asia, where wheat flour can fetch more attractive prices. More trade with the outside world will increase the use of rail containers. This way, the circulation of containers can be better managed and will drive the cost of transport down. The problem is that government agencies, trading companies, and freight forwarders in Kazakhstan and in Asia may not be aware of the full extent of the trade potential among these countries, and of the feasibility and benefits of container transport. A suggestion is for ADB to organize a similar event done by the International Road Transport Union a few years back called “From Beijing to Brussels.” The event successfully demonstrated the viability of road transport over the Asia and Europe, and offered a viable alternative to the sea route. Similarly, a symbolic transport of a twenty-foot equivalent unit (TEU) carrying Kazakh goods from Almaty to Ho Chi Minh in Viet Nam can demonstrate the advantages of container transport and/or mark a start of increased trade flows between Central Asia and Southeast Asia. To promote containerization in Kazakhstan, the government may consider providing the industry with better access to training and other similar activities to familiarize it with the documentation required for container transport.

Implications of the Six Transport Corridors

A recent study by Tera International Group for ADB has identified six transport corridors as having the most potential in promoting trade among CAR countries and transit trade in the region (Figure 18). Of the six corridors, Corridors 1 and 6 are most important because they have

a substantial part located in Kazakhstan, and they have significant impact on most domestic distribution routes and on linkages with neighboring countries.

Figure 18: Major Transport Corridors Passing through Kazakhstan



CAREC = Central Asia Regional Economic Cooperation.

Source: CAREC Transport and Trade Facilitation Strategy, April 2008.

Box 2: Description of Corridor 1

- 1 (a): Alashankou (PRC)–Dostyk–Aktogai–Moıntıy–Karagandy–Astana–Troitsk (Russian Federation)
- 1 (b): Huoerguosi (PRC)–Korgas–Almaty–Shu–Taraz–Kyzylorda–Aktobe–Zhaisan–Orenburg (Russian Federation)
- 1 (c): Bishkek (Kyrgyz Republic)–Lugovoi–Taraz–Shu– Moıntıy–Karagandy–Astana–Troitsk (Russian Federation)

Corridor 1 is arguably the most important for Kazakhstan because a large part of it passes through Almaty and Astana, and the route links the country to two of the largest economies in the world—the People’s Republic of China (PRC) and the Russian Federation. The

continued on next page

Box 2 (cont.)

potential for transit traffic is, therefore, tremendous for this route where rail transport takes precedence due to its distance. Aside from making infrastructure investments, Kazakhstan also needs to harmonize its documentation and customs procedures with those of PRC's customs to expedite smooth and safe passageway to Europe. Once capacity is expanded at the border posts and the nodes along the corridor, dedicated container block train services can be considered along this route, with competitive levy rates to attract higher demand.

Box 3: Description of Corridor 2

2(a): Baku (Azerbaijan)–Aktau–Beineu–Karakalpakstan–Nukus (Turkmenistan)

Corridor 2 is a peripheral route for Kazakhstan. However, its importance lies in its pipelines and inland waterways, which are vital for the distribution of crude oil and natural gas across the Caspian Sea, and then westward to the European market. Transport capacity for this route is 1 million barrels a day, thus, Kazakhstan must develop not only the seaport at Aktau but also the corresponding infrastructure in Mangystau oblast. This requires building high-quality roads and highways; extending railway lines to exploration and mining zones; and offering integrated logistics parks, free-trade zones, and cargo terminals to support the energy and construction sectors.

Box 4: Description of Corridor 3

3(a): Rubtsovsk (Russian Federation)–Semey–Aktogai–Almaty–Shu–Lugovoi–Taraz–Shymkent–Tashkent (Uzbekistan)

Corridor 3 has one interesting implication for Kazakhstan and this is the strategic importance of Semey City. Cargoes from the Russian Federation's Rubtsovsk City will need to pass through Semey before these are redistributed westward to Astana via Pavlodar or southward to Almaty. The geographical location of Semey makes it a good site for a consolidation center for the eastern region of Kazakhstan. Semey is also near the Pavlorda, Karagandy, and Akmola regions, which are industrial clusters that produce agricultural products, gold, oil, and nonferrous metals. Thus, it can also be a transport hub for the northeast regions.

Semey has also the potential to be a multimodal hub. It is well-connected to rail and road networks, while waterways transport can be explored. Cargoes can move by rivers to the Zhaisan Lake and then to the People's Republic of China (PRC). The problem here is that water level in the rivers has fallen over the years due to irrigation projects in the Xinjiang Uygur Autonomous Region. The Government can discuss this matter with the government of PRC and explore the possibility of opening a new water route. Finally, additional investments to upgrade the airport in the city will make Semey more attractive for transshipment.

Box 5: Description of Corridor 6

6(a): Astrakhan (Russian Federation)–Atyrau–Makat–Beineu–Karakalpakstan–Nukus (Turkmenistan)

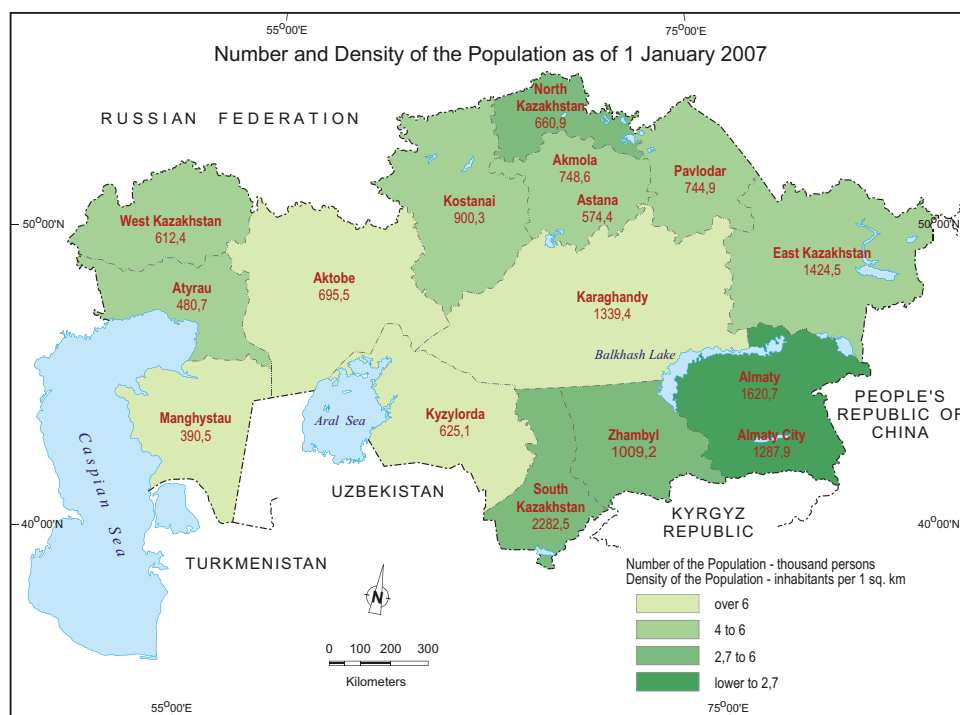
6(b) and (c): Orenburg (Russian Federation)–Aktobe–Kyzylorda–Saryagash–Tashkent (Uzbekistan)

Corridor 6 highlights the importance of Beineu in the western region. Beineu is the pivot point linking Turkmenistan and the Russian Federation, thus, its transit traffic potential is huge. However, a problem in the rail route design exists. For cargoes coming from Almaty to Shymkent and then to Kyzylorda, there are no direct rail connections to Aktau and Atyrau. Rail lines along this corridor traverse Aktobe and Uralsk and then southward to Aktau. If a secondary rail line can start from Shalkar and proceed to Beineu, the route would integrate a complete rail route from east to west of Kazakhstan. However, the line has some difficulties such as distance (about 1,000 km of land) and challenging terrain.

Implications of Demographic and Economic Patterns

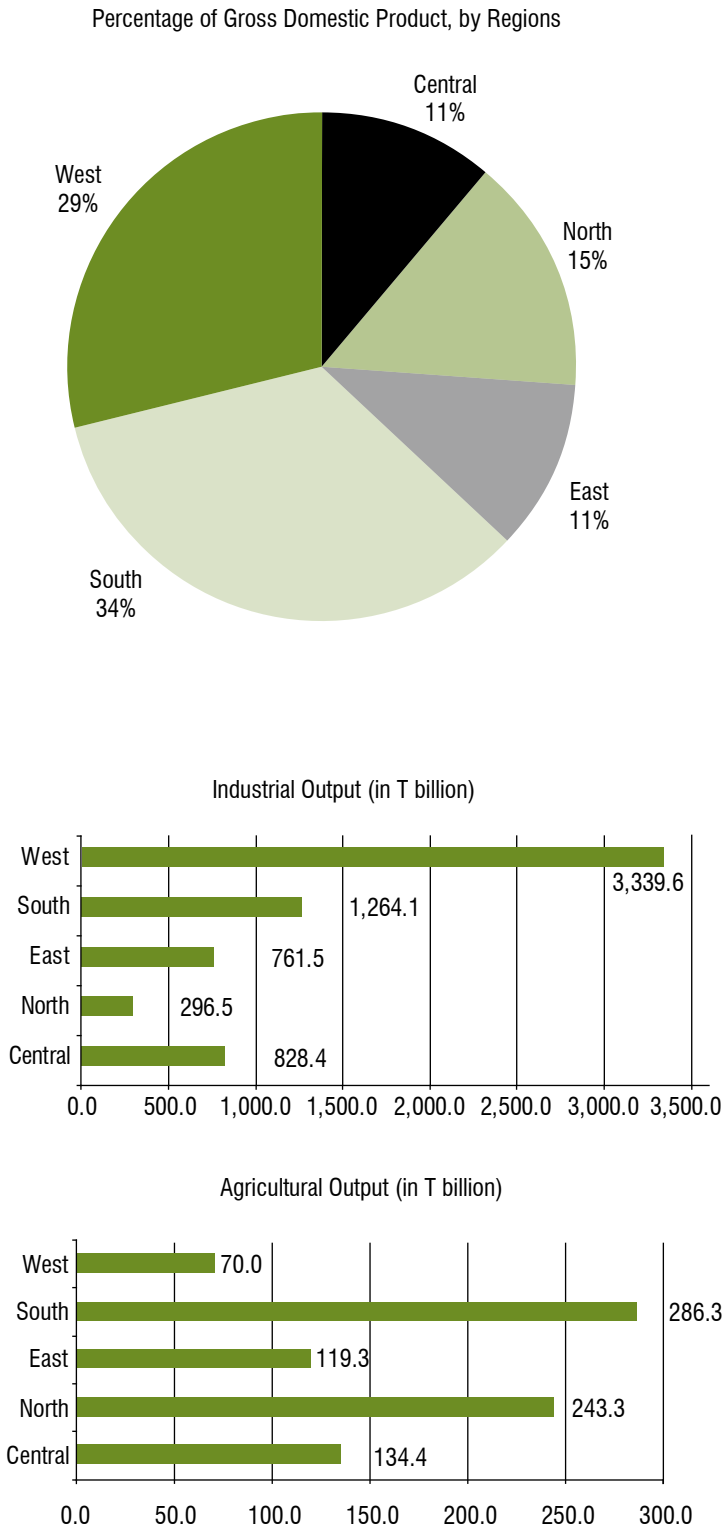
Figures 19 and 20 show vital economic information on the five regions of Kazakhstan.

Figure 19: Population Density and Distribution in Kazakhstan, 2007



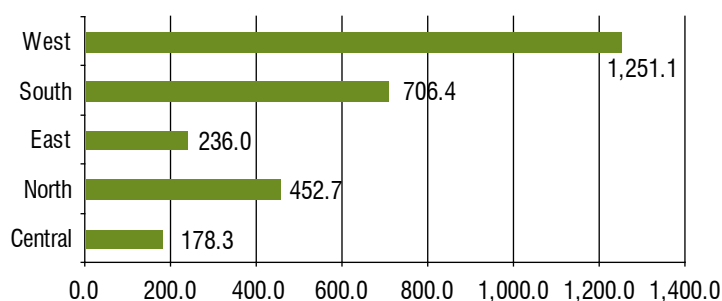
Source: Agency of Statistics of the Republic of Kazakhstan.

Figure 20: Summary of Economic Indicators of Kazakhstan, by Region, 2006⁷



⁷ Detailed data can be found in Appendix 4.

Fixed Capital Investments (in T billion)



Note: Detailed data can be found in Appendix 4.

Source: Agency of Statistics of the Republic of Kazakhstan.

Important inferences can be drawn from the economic data above.

- **Population centers.** The central region is sparsely populated. The northern and southern parts hold the highest concentrations of population.
- **Economic centers.** At first glance, it appears that the economic output of the country's southern region is high. However, Almaty accounts for more than half of the region's GDP. In fact, Almaty alone accounts for 20% of the entire country's GDP. The western zone is another key contributor to GDP. The other important economic centers include Karagandy, Atyrau, and Astana City.
- **Industrial and/or manufacturing output.** The western and central regions have the highest industrial outputs, with the former accounting for slightly more than half of the country's total. The western region, including Atyrau and Aktau, relies on mining and on the export of energy products. The tremendous potential for Kazakhstan to develop its hydrocarbon industry can only be realized if there is a reliable and well-connected transport system in the western zone. The central region is also an important manufacturing belt for Kazakhstan, especially Karagandy City.
- **Agricultural output.** Without dispute, the southern and northern regions have the highest agricultural outputs in the country with wheat, rice, and barley being the most important export products. During the Soviet era, these regions were major exporters of wool, meat, and grains. Their agricultural outputs have declined since the 1990s.
- **Fixed investments.** The western region enjoys huge inflows of foreign investments, being able to attract many energy companies into investing in real estate, facilities, and mines. This trend will continue although the rate of growth may decelerate as companies scale back investments into construction and real estate due to the worldwide credit and liquidity crisis.

Proposed Locations of Interventions to Develop the Transport and Logistics Sectors

Based on the above analyses, it is now possible to highlight the locations that should form key nodes in the transport corridors in Kazakhstan (Table 14).

Table 14: Key Nodes in Transport Corridors

Location	Status	Reasons
Almaty	City	Almaty is the economic and financial center of Kazakhstan. It is an important transport hub as it is well-connected and has relatively good infrastructure.
Astana	Capital	Astana is the political center of the country and has achieved a high growth rate.
Aktobe	City	Aktobe is an important gateway to the Russian Federation and the pivot point for two important border posts— Zhaisan and Troitsk. Once reconstructed, the road from Kostanai to Aktobe to Uralsk will improve transit between east and west. Aktobe is a key node in Corridors 1 and 6.
Karagandy	City	Karagandy is a key node in Corridor 1. Its central location makes Karagandy an ideal node for a transshipment center and a multimodal hub. The region around the city produces large industrial outputs that need to be transported to various markets.
Aktau	City	Aktau is a key node in Corridor 2. It is a good site for a multimodal transport hub for the export of crude oil to Baku. The region around it has been achieving high economic growth. The city is one of the few sites with direct flights to overseas destinations.
Atyrau	City	The region around Atyrau is experiencing high economic growth driven by the energy sector. Atyrau is a gateway to the Russian Federation in the west.
Taraz	City	Taraz is an important node in the southern region, connecting to Bishkek and Tashkent. It lies along the Western Europe–Western [People’s Republic of] China (PRC) project and the development of roads in the region will improve its accessibility to Almaty and to Uzbekistan and the Kyrgyz Republic.
Semey	City	Semey has potential as a multimodal hub to support traffic in the northeast and eastern regions. However, it has not been explicitly mentioned in major development plans. This report urges that Semey’s favorable conditions for development as a transport center be revisited.
Beineu	City	Beineu will become important once the railway from the east is linked to it. Once linked, the distance and time from the PRC to Europe will be shortened. It will also be easier to transport heavy machinery and construction equipment to Aktau and Atyrau from Almaty or Astana.
Dostyk	Border post	Dostyk is a key node in Corridor 1 and high volumes of goods are transported by rail through this border post. Its significance, however, will be diluted with the rise of Korgas as an alternative point in the near future. Dostyk is an indispensable node for PRC’s exports to Kazakhstan and to other countries in the Central Asian Region.

continued on next page

Table 14 (cont.)

Location	Status	Reasons
Korgas	Border post	Korgas is currently the border post with the highest throughput of trucks. It will be a very important node once an international logistics center is built here. Building a railway terminal here would broaden traders' options. The rail will use the same standard as that of PRC's and transloading problem at Dostyk will be avoided.
Troitsk	Border post	Troitsk is a key border post for Corridor 1.
Zhaisan	Border post	Zhaisan is a key border post for Corridor 1.
Karakalpakstan	Border post	Karakalpakstan is a key border post for Corridor 6.

Proposed Priority Investment Locations

Tiers 1 and 2 nodes in the supply chain (Figure 21) provide a preliminary overview of the “backbone” of Kazakhstan’s physical infrastructure. These highlighted areas are recommended for higher priority for investments and redevelopment. The data and arguments presented earlier demonstrate that given limited resources, focus on these suggested nodes will offer better results.

Figure 21: Map of Key Nodes of Transport Corridors in Kazakhstan



Source: Authors.

After discussing the recommendations for physical infrastructure, attention is now turned to improving operational capacity of the transport and logistics sectors.

Priority Recommendations

Table 15 presents the pressing requirements that must be addressed to improve Kazakhstan's logistics sector. It is by no means an exhaustive list but it lists priority areas given the limited resources.

Table 15: Summary of Recommendations

To improve physical infrastructure

CAREC corridor	Proposal
1a	Construction of a new rail from Shalkar to Beineu.
1b	Construction of a new rail from Korgas to Almaty via Zhetigen.
6a	Electrification of the rail linking Makat to Kandagash.
1a	Electrification of the rail linking Dostky to Aktogai.
1a	Electrification of the rail linking Aktogai to Mointy.
1b and/or 6b	Improvement of the regional road systems from Kostanai to Aktobe to Uralsk.
6a	Construction of a new road linking Shalkar to Beineu.
3a	Improvement of the airport at Semey.
3a	Explore waterways transport from Semey to the People's Republic of China.
1b and/or 3a	Rehabilitation of the road from Almaty to Taraz to Shymkent.
6a	Development of Aktau into an integrated logistics center.
1a	Increase in the throughput capacity at Dostyk.
1b	Increase in the throughput capacity at Korgas.
1a and/or 1b	Improvement of the clearance efficiency at Zhaisan and Troitsk.
2a and/or 6a	Improvement of the clearance efficiency at Karakalpakstan.

To improve operations capability and actions related to institutional policies

Type	Proposals
Operations	Review of container import tariffs.
Operations	Promotion of container traffic.
Trade Promotion	Improvement of Kazakhstan's trade relations.
Education	Conduct of International Freight Forwarders Association and/or International Air Transport Association courses.
Education	Introduction of a modern logistics curriculum and marketing with Almaty as the logistics education hub.
Immigration	Review of immigration rules to attract overseas logistics professionals.
Customs	Customs to streamline the export and import procedures.
Customs	Review of customs procedures to consider setting up a single electronic window mechanism for permit application and declaration.
Financial	Consider putting up a fund dedicated for transport and logistics.
Financial	Provision of enterprise loans for small and medium logistics companies.

Conclusion

Kazakhstan achieved independence on 16 December 1991—the last country in the former Soviet Union to do so. Since then, it has made a successful transition from a planned economy to one that is open to market dynamics. The road ahead is challenging yet the future remains bright.

With an annual gross domestic product growth rate of more than 9%, Kazakhstan's economic progress has been remarkable. As the largest landlocked and the ninth largest country in the world, it should have a greater role in modern-day trade and commerce.

In the short term, Kazakhstan's fortune is inevitably tied with the volatile cycle of energy prices and the developments in the hydrocarbon industry. While rapid rises in oil price increases state revenues, downswings can throw the country's financial management into turmoil. For this reason, a steady and sustainable source of revenue should be developed and this is only possible if Kazakhstan diversifies its economy. The most logical alternative or complement to its hydrocarbon industry is to make full use of its unique geographical position—by being a transit country at the crossroads of trade between Europe and Asia. To develop this alternative, Kazakhstan must decrease the cost of transport and overcome the barriers posed by difficult terrain, cumbersome customs procedures, nontariff trade barriers, and friction that are so common in Central Asia. This is not impossible. After all, it has shown the world that ethnically diverse people can live in harmony. It has also demonstrated that rapid economic growth can be achieved in a short period.

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Appendixes

Appendix 1: List of Interviewees and their Organizations

Organization	Name of representative	Type of organization
Al Farabi	Almukhanov Ertan Maksutkhanovich Manager	Private enterprise
Asian Development Bank	Stephen Wermert Country Director Kazakhstan Resident Mission Maksat B. Kystaubayev Regional Coordination Specialist	International finance institution
Customs Control Committee of Kazakhstan Republic Finance Ministry	Galanamatis Alexander Chief Specialist, Customs Control Committee	Ministry
ITLS	Alexey S. Rozhitsyn Managing Director Lilian Gamotskaya CEO's Counsellor Dmitriy Verkholtsev Head of Air Cargo Department	Private enterprise
Kazakh Academy of Transport and Communications	Alexey Monastyrskiy Professor and Vice Director Aliya D. Mustapaeva Head of Department, International Relations	Education institute
Kazakh Automobile-Road Goncharov Institute (KazAri)	Prof. Victor V. Nee Director	Education institute
Kazakhstan Republic Association of Autotransport & Autoroad Complex (AAA)	Mambetalin Alikhan Esengosovich President	Association

continued on next page

Appendix 1 (cont.)

Organization	Name of representative	Type of organization
KazRoadProjects	Prof. Yuri K. Komov Director General	Private enterprise
Ministry of Industry and Trade	Adilbek Yskak Deputy Chairman	Ministry
	Togzhan Assan Head of Corporate Department	
	Malika Koyanbayeva Chief Expert, Economic Analysis Department	
Ministry of Transport and Communications	Saltanat Akhmet Head of Department, Land Transport	Ministry
Pony Express	Adil Suleimov General Director	Private enterprise
Singapore Technologies (Engineering)	Ng Kheng Hua President	Private enterprise
	Ng Choon Yeow Deputy President (Electronics)	
	Sharvat Ramazanova Director, Business Development	
Tsesna Investment	Zeinolla R. Kalymbetov Advisor to the Chairman	Private enterprise
Union of International Road Carriers of the Republic of Kazakhstan (KazAto)	Alexandr A. Dennissenko Deputy Secretary General	Association
Xinjiang Yema Economy and Trade	Janabek Bifossynov Commercial Director	Private enterprise

Appendix 2: List of Transport Operators in Kazakhstan

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Appendix 3: Summary of Trade and Transport Agreements

International and/or Multilateral Agreements

Agreements
1. UN International Goods Purchase and Sales
2. Agreement on International Goods Transportation and Automobiles
3. Agreement on International Railways Transportation for Goods
4. International Railways Goods Tariff
5. Union Jurisdiction for International Railways Goods Transportation
6. UN Convention on Goods Transportation by Sea
7. World Convention on International Transportation through Air
8. FIATA Conventions
9. Convention on Road Traffic (8 November 1968)
10. Convention on Road Signs and Signals (8 November 1968)
11. Convention on the Contract for International Carriage of Goods by Roads (19 May 1956) CMR
12. Customs Convention on International Transport of Goods under TIR Carnets (14 November 1975)

Countries	1	2	3	4	5	6	7	8	9	10	11	12
Azerbaijan			X	X			X	X				X
Kazakhstan		X	X	X			X	X	X	X	X	X
Kyrgyz Republic	X	X	X	X			X				X	X
Tajikistan		X	X	X					X	X	X	X
Turkmenistan		X	X	X					X	X	X	X
Uzbekistan	X	X	X	X				X	X	X	X	X

Source: Authors.

Appendix 4: Macroeconomic Indicators of Kazakhstan, 2006

Oblasts	Zone	<i>in T billion</i>							
		GDP	%	Industrial output	%	Agricultural output	%	Fixed capital investments	%
Akmola	Central	216.6	2.38	98.1	1.51	91.3	10.70	44.1	1.56
Karagandy	Central	806.1	8.85	730.3	11.25	43.1	5.05	134.2	4.75
	Total	1,022.7	11.23	828.4	12.76	134.4	15.75	178.3	6.31
East Kazakhstan	East	543.6	5.97	410.1	6.32	80.3	9.41	116.0	4.11
Pavlorda	East	441.8	4.85	351.4	5.41	39	4.57	120.0	4.25
	Total	985.4	10.82	761.5	11.73	119.3	13.98	236.0	8.36
Astana City	North	830.7	9.12	78.6	1.21	0.7	0.08	354.6	12.55
Kostanai	North	354.3	3.89	174.3	2.69	131.1	15.36	63.8	2.26
North Kazakhstan	North	194.1	2.13	43.6	0.67	111.5	13.07	34.3	1.21
	Total	1,379.1	15.14	296.5	4.57	243.3	28.51	452.7	16.03
Almaty	South	361.1	3.97	222.9	3.43	119	13.95	112.4	3.98
Almaty City	South	1,813.1	19.91	306.5	4.72	2.2	0.26	417.4	14.78
Kyzylorda	South	365.4	4.01	513.3	7.91	18.4	2.16	66.5	2.35
South Kazakhstan	South	377.2	4.14	141.1	2.17	100.9	11.82	84.5	2.99
Zhambyl	South	180.5	1.98	80.3	1.24	45.8	5.37	25.6	0.91
	Total	3,097.3	34.01	1,264.1	19.48	286.3	33.55	706.4	25.01
Aktobe	West	518.7	5.70	554.9	8.55	29.4	3.45	187.1	6.62
Atyrau	West	1,019.4	11.19	1,226.0	18.89	11	1.29	727.6	25.76
Mangystau	West	585.5	6.43	967.3	14.90	2.6	0.30	229.8	8.14
West Kazakhstan	West	498.7	5.48	591.4	9.11	27	3.16	106.6	3.77
	Total	2,622.3	28.79	3,339.6	51.46	70	8.20	1,251.1	44.29
Total		9,106.8		6,490.1		853.3		2,824.5	

GDP = gross domestic product.

Source: Agency of Statistic of the Republic of Kazakhstan, 2007.