

ENPI 2011 / 264 459

## Logistics Processes and Motorways of the Sea II

LOGMOS Master Plan – Annex 9.1 Country Profile

KAZAKHSTAN

October 2013



This project is funded by the European Union





A project implemented by Egis International / Dornier Consulting



## TABLE OF CONTENTS

1	INTRODUCTION	3
2	NATIONAL TRANSPORT POLICY	4
3	LEGAL ENVIRONMENT IN THE FIELD OF TRANSPORT	7
4	NATIONAL POLICY AND LEGISLATION IN TRADE AND TRANSIT	11
5	INVESTMENTS IN TRANSPORT AND LOGISTICS SECTOR IN KAZAKHSTAN	13
6	STRATEGIC CHALLENGES	15
	6.1 MARKET CHALLENGES	15
	6.1.1 National Trade: Exports and Imports	15
	6.1.2 Regional TRACECA Trade	19
	6.2 INTERMODAL MARITIME BASED TRANSPORT CHALLENGES	24
	6.2.1 Port System and Maritime Links	24
	6.2.2 Inland Transport Mode: Railways	26
	6.2.3 Inland Transport Mode: Roads	
	6.3 TRADE AND TRANSIT FACILITATION	35
	6.3.1 SWOT Analysis	
7	PILOT PROJECTS SELECTED FOR MOS I AND ILC PROJECTS	

## LIST OF TABLES

Table 1: Bilateral Agreements with LOGMOS Beneficiary Countries	8
Table 2: Multilateral Agreements with LOGMOS Beneficiary Countries	. 10
Table 3: IFI Supported Projects in Kazakhstan	.13
Table 4: Distribution of Kazakhstan Potential Trade Partners	. 16
Table 5: Kazakhstan Potential Trade with TRACECA Countries and Europe	. 17
Table 6: Potential Trade with TRACECA Region - Commodity Structure of Imports to Kazakhstan	.21
Table 7: Potential Trade with TRACECA Region - Commodity Structure of Exports from Kazakhstan	.23
Table 8: Throughput Data of Aktau Port	.25
Table 9: Main Features of Kazakhstan Railway Network	.28
Table 10: List of European Roads Crossing Kazakhstan	. 32
Table 11: SWOT Analysis in Trade and Transit Facilitation Procedures	. 37
Table 12: Selected Pilot Projects in Kazakhstan	. 38

## LIST OF FIGURES

Figure 1: General Map of Kazakhstan	2
Figure 2: Kazakhstan Trade Partners	15
Figure 3: Kazakhstan Trade Partners, Potential Trade	16
Figure 4: Kazakhstan Potential Trade with TRACECA Countries and Europe	18
Figure 5: Potential Trade with TRACECA Region - Commodity Structure of Imports to Kazakhstan	20
Figure 6: Potential Trade with TRACECA Region - Commodity Structure of Exports from Kazakhstan	22
Figure 7: Kazakhstan Railway Map	26
Figure 8: Dynamics of Freight Turnover from 2002 - 2012	28
Figure 9: The Route of the Chongqing–Duisburg Container Train	29
Figure 10: Kazakhstan Road Map	31
Figure 11: Kazakhstan Strategic Road Corridors	33
Figure 12: Kazakhstan Highway Network by 2050	35







## Figure 1: General Map of Kazakhstan



Source: TRACECA (2013)





## 1 INTRODUCTION

The Republic of Kazakhstan is the largest country in Central Asia. It occupies a territory of 2,724.9 thousand sq.km with a population of 17.053 M inhabitants (01.08.2013). It has a common border with the Russian Federation (7,591 km), the Republic of Uzbekistan (2,354 km), Turkmenistan (426 km), the Kyrgyz Republic (1,241 km), the People's Republic of China (1,782 km) and the Caspian Sea (600 km).

The geographical position of the Republic Kazakhstan (in the centre of the Euro-Asian continent), the growth of its economy and current policies regarding integration into the world economic system have created strong preconditions and real possibilities for the active participation of Kazakhstan in the resolution of transport and communication issues between the countries of Europe and Asia.

#### World trade and logistics performance indicators

In 2012, Kazakhstan was ranked 105<sup>th</sup> out of 132 countries in the Enabling Trade Index developed by the World Economic Forum (average score of 3.5/7). It occupied, in particular, the 120<sup>th</sup> position for access to market, the 127<sup>th</sup> position for border administration, the 45<sup>th</sup> position for transport and communications infrastructure and the 89<sup>th</sup> position for business environment.

In the World Bank logistics performance index of 2012, Kazakhstan was ranked 86<sup>th</sup>, compared to 62<sup>nd</sup> in 2010.

#### TRACECA Framework

Kazakhstan has been an active member of TRACECA since the Brussels Conference in May 1993 where the TRACECA programme started.

The ten direct beneficiary countries under review by LOGMOS Project share a globally common legal and regulatory background for the transport sector, but also operate under different laws and rules that result their retrospective contexts and policies.

International Conventions and regional or bilateral agreements complete the framework, and there are expected moves at both national and regional (TRACECA and other groups) levels.

Any legal issues relating to the LOGMOS Project focuses on transport laws and regulations as well as on the aforementioned national, international, regional and bilateral conventions and agreements that have a direct or indirect impact on surface transport modes, particularly maritime and intermodal transport<sup>1</sup>.

The TRACECA programme started out as one of the components of the intergovernmental TACIS programme. The active participation of Kazakhstan started in September 1998, when it signed without any restriction the Basic Multilateral Agreement (MLA) on the development of the transport corridor Europe – Caucasus – Asia which was also signed by Azerbaijan, Armenia, Bulgaria, Georgia, Kyrgyzstan, Moldova, Romania, Tajikistan, Turkey, Ukraine and Uzbekistan.

After the Intergovernmental Committee and Permanent Secretariat of TRACECA were established in 2000, Kazakhstan set up a TRACECA National Commission headed by a national secretary.

Kazakhstan representatives take an active part in all conferences and working group's meetings organised by IGC TRACECA.

<sup>&</sup>lt;sup>1</sup> More detailed information can be found on the separate <u>legal report of the LOGMOS Master Plan</u>





## 2 NATIONAL TRANSPORT POLICY

The national transport policy of the Republic of Kazakhstan is defined in the following documents:

- Government programme on the forced industrially-innovative development of Republic Kazakhstan for 2010–2014
- Strategic Plan for the development of the Republic of Kazakhstan till 2020
- Strategic Plan for the development of the Republic of Kazakhstan till 2030
- Strategic Plan of the Ministry of Transport and Communications of the Republic of Kazakhstan for the period 2011–2015
- Strategic Plan of the Ministry of Economic Development and Trade of Republic Kazakhstan for the period 2011–2015

The main objective of the Government programme on the forced industrially-innovative development of Republic Kazakhstan for 2010–2014 is the development of the transport and communication sector to fully satisfy the needs of a growing economy and the population in terms of transport services.

The total resources allocated for the implementation and realisation of the programme are USD 19,211 M, divided as follows:

- Republican budget USD 7,562.8 M
- Concession USD 4,366.2 M
- Borrowing costs USD 4,182.8 M
- Own funds of the companies USD 3,099.2 M

The programme on development of a transport infrastructure in Republic Kazakhstan for 2010–2014 is the logical step from the ongoing transport policy. It integrates the basic approaches of the transport strategy of Republic Kazakhstan till 2015, which included the following sectorial programmes and concepts:

- Programme of development for the road sector of Republic Kazakhstan for 2006–2012
- Programme of development for sea transport of Republic Kazakhstan for 2006–2012
- Programme of development for navigation and safety on internal waterways of Republic of Kazakhstan for 2007–2012
- Concept of development of trading navigation in Republic Kazakhstan
- Concept of perfection of the state system on safety of transportations of passengers and cargoes of Republic Kazakhstan

The development of the transport sector aims to increase the level of infrastructure development in every transport sector (road, railway, civil aviation and water transport) and to improve integration of transport and communication systems in international transport networks.

#### Road Sector

The main issues concern the development of the economy, construction demand and the modernisation of a powerful transport and communication network. This project prioritises the following areas:







- Finishing the reconstruction project on the international transit corridor of Western Europe-Western China, establishing new transport routes with exits from the international markets of central Asian countries (Uzbekistan and Kyrgyzstan) and modernising transport highways. The road Europe-Russia-Kazakhstan-China is the shortest way from China to Europe, and has the least number of crossed countries and borders. These competitive advantages result in a record travel time of about 10 days. The project will provide a high level of service that comes from the combination of an excellent technical corridor and a modern intellectual system and network of services operating in the logistical centres. A serious problem that will hinder the development of international road transport is borne out of the inefficiency of cargo processing systems and their accompanying documentation as well as the superfluous checks and obstacles arranged by supervising bodies and a considerable quantity of taxes. These problems can be tackled through the simplification of transport procedures, by stramlining the documentation for transport and by creating logistical systems (LS) to operate across the corridor. Besides the already-built international centre cooperation «Khorgos», planned in the confirmed feasibility study on building the corridor of Western Europe-Western China, five large and average LS across the route has been mentioned and there is also plans to build small LS in other regions of the Republic (according to national requirements).
- Finishing the reconstruction of main highways: Introducing schemes of transit routes in the West–East and North–South directions more actively.

#### **Railway Sector**

The existing railway sector of Republic Kazakhstan is characterised by a misbalance in the growing requirements of consumers to assortment, quality, speed and reliability on the one hand, and physically threadbare actives, obsolete technologies and the non-competitive characteristics of services on the other.

Railway reform aims to increase the efficiency and the quality of service through a process of liberalisation, which requires the involvement of private initiative and investments. The Government of Kazakhstan has adapted the approach accepted in the European Union, which consists of a functional division of railway infrastructure, transportation activities and competition development.

The major priority for railway infrastructure is the development of transit potential, which can be achieved through the construction of new railway lines.

The construction of a new railway line Uzen–border of Turkmenistan has been completed. This line is a part of the international North–South corridor. It will provide direct connection from Kazakhstan to the Gulf States and Iran, creating a route 600 km shorter than other existing routes.

The project Korgas–Zhetygen (a 293 km extension that was completed in 2012) has opened the second railway border point with China and has essentially relieved Dostyk.

#### Maritime Transport

Currently, there is a dynamic development taking place across the sea transport sector.

Transfer of cargo through Kazakhstan's seaports amounts to about of 12.3 M tonnes annually. Aktau port has evolved its export cargo transfer while Bautino port has become specialised in sea oil operations.







However, the ports have reached the limit of their designed capacities. Improvements to the existing infrastructure of Aktau port, further development of Bautino port and construction of Kuryk port are being conducted.

Similar measures to increase port capacities have been adopted by the neighbouring Caspian states. Azerbaijan is conducting work on the building of the new bulk-oil terminal at the port of Baku while Russia works on the expansion of the industrial infrastructure at Olya and Makhachkala ports.





## 3 LEGAL ENVIRONMENT IN THE FIELD OF TRANSPORT

The basis of transport legislation is presented by norms of the Civil code. In Chapters 34 «Transportation» and 35 «Transport expedition» the main provisions on transportation are fixed, including contracts relating to cargo transportation, passengers, luggage, transport expedition, the responsibility of a carrier, the rules of presenting of claims and actions, mutual relations on transport expedition etc.

The founding law «On transport in Republic of Kazakhstan» was adopted practically at the beginning of market economy, in 1994. It defined the bases of legal, economic and organisational activities in the transport sector of the Republic of Kazakhstan.

Legal regulation acts were then adopted for each sector of the transport:

- «On transport in the Republic of Kazakhstan» (1994)
- «On use of air space and aviation activity» (2010)
- «On trading navigation» (2002)
- «On railway transport» (2001)
- «On internal water transport» (2004)
- «On road transport» (2003)
- «On licensing» (2007)

These laws establish legal, organisational and financial (tariff) operating conditions for each type of transport and go on to define its communications with state structures, services' consumers and fix bases of conceptually new approaches to the organisation of transportations, including new competitive market conditions.

Construction, operation and development of highways and traffic safety are also regulated by the specific Laws «On highways» (2001) and «On traffic safety» (1996).

Modifications and changes in the legislation are performed on a regular basis. The law on railway transport was last modified in 2012, while the laws on highways and internal water transport were improved in 2011.

Transport legislation in Kazakhstan is based on the transport legislation of USSR and has incorporated all its substantive provisions. It concerns positions connected with the conclusion of the transportation contract, such as the allocation of vehicles or the responsibility of a carrier for the loss, shortage or damage of cargo or luggage. Legal rules borrowed the USSR have remained invariable for many years, despite economic reforms in the state and transformations. Generally speaking, the instability of the modern national legislation regulating transport activity can be connected to the constant modification in regulatory acts caused by the development of market relations and reforms.

#### **Bilateral Basis**

The main problems for transport operators running along Eurasian routes include long waiting times at borders, difficulties in providing visas to professional drivers, quotas on trips and permissions, all of which have become unreasonable financial expenses that are often added onto transit taxes. As a rule, these questions have become a subject of bilateral international contracts.





Kazakhstan has closed a significant number of agreements on motor traffic, in the field of railway, water, air transport and customs. Intergovernmental agreements in the field of transport have generated a necessary legal base that will help to enhance the efficiency of international transportation. These agreements have also created favourable conditions which makes the development all the more possible.

The main standard documents adopted by the Republic of Kazakhstan, on bilateral cooperation with beneficiary countries of the LOGMOS project, are presented in Table 1, below:

Countries	Maritime	Road	Railway	General	Customs
Armenia		On international road transport 06.11.2006			On cooperation and mutual assistance in customs issues 02.09.1999
On trading Azerbaijan navigation 10.06.1997		On international road transport 16.09.1996		On general principles of cooperation in the field of transport 24.02.1993	On cooperation on customs issues 03.02.1993
Bulgaria					
Georgia		On international road transport 06.03.2007	On cooperation in the field of railway transport 01.06.1993	On order of transit 17.09.1996	On general principles in the field of customs 01.06.1993
Kyrgyzstan		On international road transport 26.10.1993 On transit carriage of goods by road via the territory of Kazakhstan 26.03.2004	Agreement on peculiarities of legal regulations of activities of enterprises, institutions and organizations in the railway sector 08.04.1997 Agreement on tariffs policy regulation in the sector of railway transport 07.08.1997		On cooperation and mutual assistance in customs issues 04.04.2000
Moldova		On international road transport			

#### **Table 1: Bilateral Agreements with LOGMOS Beneficiary Countries**







		15.07.1999			
Romania		On international road transport for goods 22.11.2007			
Tajikistan		On international road transport 04.05.2006			Agreement on collaboration and recognition of customs documents and customs duties 13.06.2000
Turkey		On international road transport 01.05.1992			On cooperation and mutual assistance in customs issues 22.05.2003
Turkmenistan	On usage of ports for the handling and transport of transit cargoes 27.02.1997	On road services 10.05.1992 On international road transport for passengers and goods 27.02.1997		On general principles of cooperation in the field of transport and communication 19.05.1993	On cooperation and mutual assistance in customs issues 05.07.2001
Ukraine		On international road transport 22.02.1993	On cooperation in the field of railway 22.02.1993	On general principles of cooperation in the field of transport 22.02.1993	On cooperation on customs issues 17.09.1999 On customs statistics sharing 06.06.2006
Uzbekistan		On international road transport 20.03.2006	On cooperation in the field of railway transport 02.06.1997	On transit of people, goods, baggage, their security via roads and railways links between Kazakhstan and Uzbekistan 27.03.1998	On cooperation on customs issues 31.10.1998

Ferry connections between Azerbaijan and Kazakhstan restarted in April 2009 on the signing of an agreement between all the national Authorities, CASPAR and the Ports.







#### Multilateral Conventional Basis

International transport issues are also tackled through multilateral conventional agreements. 120 international agreements and conventions regulating various aspects of transport activity exist. Almost half of their total number (55) of agreements and conventions were concluded under the aegis of the United Nations Economic Commission for Europe (UNECE).

Resolution 48/11 on road and rail transport was agreed and ratified in 1992 with the aim of maintaining a legal basis for land transportation. It was recommended that Asian states join seven base conventions and agreements:

- Convention on Road Signs and Signals, 1968
- Convention on Road Traffic, 1968
- International Convention on the Harmonisation of Frontier Controls of Goods, 1982
- Convention on the Contract for the International Carriage of Goods by Road (CMR), 1956
- Customs Convention on the International Transport of Goods Under Cover of TIR CARNETS, 1975
- Customs Convention on Containers, 1972
- Customs Convention on the Temporary Importation of Commercial Road Vehicles, 1956

Kazakhstan joined practically all conventions recommended by Resolution 48/11, with the exception of the Customs Convention on the Temporary Importation of Commercial Road Vehicles (1956).

Signatory countries	Title of the agreement	Place and date of signature
Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan	On principles of cooperation and terms of relations in transport area	Bishkek, 23.04.1992
Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan	On coordination of the activity of railway transport	Bishkek, 23.04.1992

## Table 2: Multilateral Agreements with LOGMOS Beneficiary Countries

Under the assistance of the LOGMOS project, Azerbaijan, Georgia, Kazakhstan and Turkey signed a "Memorandum of Understanding on the principles of joint activity on the development of transport networks and organization of cargo transportation", in Izmir on November 28<sup>th</sup> 2012.

The MoU paves the ground for the signature of an Intergovernmental Agreement on the "Silk-Wind block train project" and set the legal basis for its technical implementation.

The Silk Wind project aims to enhance the attractiveness and the transit function of the TRACECA transport corridor by creating a smooth and reliable route from Western China to Europe. Along the corridor it offers new infrastructure projects (construction of Beyneu–Zhezkazgan railway line in Kazakhstan, Baku–Tbilisi–Kars railway line, the New Port of Baku at Alyat and the Marmara railway tunnel in Istanbul) and simplified customs and border crossings through the preliminary information exchange system between customs authorities and railway operators<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> For a more detailed description of the Silk Wind Project, please refer to the <u>Annex 4 on MCA Project</u> <u>Fiches of the LOGMOS Progress Report III</u>





## 4 NATIONAL POLICY AND LEGISLATION IN TRADE AND TRANSIT

The Strategic plan of the Ministry of Economic Development and Trade of Republic Kazakhstan 2011–2015 includes two strategic orientations that, upon realisation, will not only generate favourable conditions for the improvement of the population's well-being, but will also encourage sustainable long–term development in long-term across the country.

The first strategic orientation relates to the increase of the country's competitiveness of and to the modernisation of the national economy:

Objective 1: Maintenance of growth of the Kazakhstan economy so that 2020 levels are more than one third higher than the 2009 level.

- Goal 1.1. Maintenance of development of economy within predicted parameters
- Goal 1.2. Creation of conditions for business development
- Goal 1.3. Development of mechanisms for public-private partnerships
- Goal 1.4. Increase in the efficiency of domestic trade
- Goal 1.5. Creation of a rational territorial organisation of economic potential and favourable living conditions

Objective 2: Creation of an effective and operative system that protects and advances economic interests by integrating the nation's economy into the world trade and economic system.

- Goal 2.1. End the formation of the customs union within the limits of the Euroasian economic community
- Goal 2.2. End the formation of Uniform economic space between Belarus, the Republic of Kazakhstan and the Russian Federation
- Goal 2.3. Accession to the World Trade Organization
- Goal 2.4. Find a place in international markets

The second strategic orientation relates to the creation of a productive public sector.

Objective 1: Introduction of a new model by 2015, based on principles of corporate governance, productivity, transparency and accountability.

- Goal 1.1. Improved quality of rendering of the state services
- Goal 1.2. Introduction of the elements necessary for the a quality, results-driven public management system

During active development of trade relations the increase in international cargo and vehicles result in a significant increase in the value of the transit system in general. Transit becomes the objective indicator of development of international cooperation and economic well-being.

At the international level, transit is regulated by several special international Conventions, namely:

- Barcelona Convention and Statute on Freedom of transit from April 20th, 1921 (Barcelona), which has not yet been signed by the Republic of Kazakhstan
- New York Convention on transit trade of Landlocked states from July 8th, 1965, which was ratified in 2007 by the Republic of Kazakhstan.





#### The International Customs Norms

The international customs norms are integral to the regulation of transit. Their application enables a considerably time reduction for customs registration of cargo at border crossing points. The most current international customs conventions that concern transportation are:

- International convention on the simplification and harmonisation of customs procedures (Kyoto Convention) (1974) and its new edition (the Report of changes in the Convention is made on June 26th, 1999 in Brussels)
- Customs Convention on the International Transport of Goods Under Cover of TIR carnet (TIR Convention, 1975)
- International Convention on the Harmonization of Frontier Controls of Goods, 1982
- Customs Convention of ATA Carnet for temporary importation of goods (1961)
- Convention on Temporary Admission (Istanbul, 1990)

Today Kazakhstan is an active supporter of legal documents developed not only under the aegis of UNECE and UNESCAP, but also under other leading international organisations, such as UNCTAD, OSJD, IMO, etc.

To simplify borders crossing procedures and unify transit documentation, harmonisation of national legislations and regulatory instructions must be carried out at regional levels, meaning within the limits of the CIS, the Customs union, EurAsEC, etc..

#### Multilateral Intergovernmental Basis

In the regulation of international transportations, the particular interest is represented by a system created within the limits of the European Conference of Ministers of Transport (ECMT).

As has been shown in ECMT's experience, activity in the intergovernmental organisation can promote the establishment of general rules on activity and facilitate a process of acceptance of intergovernmental decisions and integration.

In 1998, Kazakhstan signed the "Multilateral Agreement on International Transport for the Development of the Europe–the Caucasus–Asia Corridor", which included technical annexes on road, rail transport, commercial marine navigation, customs and documents exchanged with the reservation in regards to the article 4 "Preferential Terms and Tariffs" and appendix 2, which restricts Parties from granting the following preferential terms and tariffs:

- up to 50% discount on the full current tariffs for carriage of goods by rail, except for other preferential tariffs
- up to 50% reduction for empty waggons.





## 5 INVESTMENTS IN TRANSPORT AND LOGISTICS SECTOR IN KAZAKHSTAN

The selection and implementation of priority investment projects for the development of transport infrastructure are needed to enhance transit transport and economic links with others TRACECA countries. It is also important to improve the structure of the transport network and its technical level as well as the cost and quality of indicators that relate to the environmental and social sectors, amongst others.

According to the Program on development of transport infrastructure in the Republic of Kazakhstan on 2010–2014, the main investment projects in the transport sector of Kazakhstan are as follows:

- In the road sector 28 investment projects;
- In the railway sector 6 investment projects;
- In the sea transport 11 investment projects.

Over the last ten years, a number of transport projects, presented in Table 3 below, were also financed by IFIs such as the World Bank, the EBRD, the ADB, the JICA or the IsDB.

One of the largest of EBRD's deals in 2012 was the provision of over USD 196 M to reconstruct a 62 km section of the road connecting the Kazakh city of Shymkent with the Uzbek border. The new road is part of a much wider project upgrading the critical main transport corridor linking Europe and China.

Title of project	Year of approval	Sub-sector	Total project cost	IFI funding
Shymkent to Uzbek border	2012	Road	USD 195 M	USD 195 M ( <b>EBRD</b> )
East-West Roads Project CAREC 1b	2012	Road	USD 1,256 M	USD 1,068 M ( <b>WB</b> )
KTZ Energy Efficiency	2012	Railway	USD 396 M	USD 140 M ( <b>EBRD</b> )
CAREC Corridor 2 Program 1	2011	Road	USD 333 M	USD 283 M ( <b>ADB</b> )
CAREC Corridor 1 (Taraz Bypass) Project	2011	Road	USD 95 M	USD 95 M ( <b>ADB</b> )
CAREC Corridor 1 Program 4	2011	Road	USD 112 M	USD 112 M ( <b>ADB</b> )
Circle Maritime Invest	2010	Maritime	USD 122 M	USD 65 M ( <b>EBRD)</b>
CAREC Corridor 1 Program 3	2010	Road	USD 281 M	USD 173 M ( <b>ADB</b> ) 68 M ( <b>JICA</b> )
South-West Roads CAREC 1b and 6b	2009	Road	USD 377.125 M	USD 2.125 M ( <b>WB</b> )
CAREC Corridor 1 Program 2	2009	Road	USD 425 M	USD 187 M ( <b>ADB)</b> USD 170 M ( <b>IsDB</b> )
CAREC Corridor 1	2008	Road	USD 400 M	USD 340 M ( <b>ADB</b> )

## Table 3: IFI Supported Projects in Kazakhstan





# egis International **DORNIER**

#### Logistics Processes and Motorways of the Sea II

Program 1				
South-West Corridor Road Project	2008	Road	USD 207 M	USD 180 M ( <b>EBRD</b> )
Road Rehabilitation Project	2004	Road	USD 77 M	USD 50 M (ADB)
Road Sector Restructuring	2003	Road	USD 246 M	USD 119 M ( <b>EBRD</b> )
Western Kazakhstan Road Network Rehabilitation Project	2000	Railway	JPY 16,539 M	JPY 16,539 M ( <b>JBIC</b> )





## 6 STRATEGIC CHALLENGES

## 6.1 Market Challenges

## 6.1.1 National Trade: Exports and Imports

## World Trade Partners

Thanks to its geographical location, Kazakhstan is advantaged in being able to develop trade relations with China, Russia and a number of Central Asian and Middle East countries. On top of that, it also trades with Europe in a number of consumer and industrial goods. Northern and Southern Americas are also among potential trade markets for Kazakhstan, however, this usually depends on the external context, namely, the trade regulations and exchange rate policy. In addition to this, Turkey could be mentioned as an important trade partner of Kazakhstan as well, since it appears to be equally important as a number of Central Asian countries (Turkmenistan, Tajikistan, Uzbekistan and Kyrgyzstan) collectively (see Figure 2 below).



Figure 2: Kazakhstan Trade Partners, 2010 bn EUR

Source: Computation based on Eurostat and UN Comtrade databases

As can be seen from the figure above, Kazakhstan holds a strong position on international markets. In 2010, its exports greatly outnumbered the imports and, according to UN Comtrade, net export constituted USB 33.2 bn (or EUR 25 bn). This is not an entirely unexpected result when considering production capacity of Kazakhstan in cereals, iron ore and other steel products. However, by putting aside oil, natural gas, coal and live animal stock, etc., which are transported in bulk only, the figure should bring about an entirely different result (see Figure 3).









Figure 3: Kazakhstan Trade Partners, Potential Trade, 2010, bn EUR

Source: Computation based on Eurostat and UN Comtrade databases

Leaving bulk goods out of the analysis, Kazakhstan appears to be a net importer: according to the Consultant, net imports of classified goods amounted to EUR 8.1 bn in 2010 (the difference between imports and exports of relevant goods was almost twofold). The majority of these (nonbulk) goods are shipped from Europe, China/Mongolia, Russia, Ukraine and Moldova, Central Asia, but also other destinations. However, the key potential for the LOGMOS project would be trade between Kazakhstan and Europe (excluding CIS and TRACECA countries), Turkey, Caucasus, Bulgaria/Romania, Belarus, Ukraine/Moldova. The above mentioned countries contribute, respectively, 56% and 40% in estimated exports and imports of non-bulk commodities (refer to related trade in Table 4 below). This means that almost two thirds of non-bulk exports from Kazakhstan are targeted at the TRACECA region, while the import geography of Kazakhstan in non-bulk goods is much more diversified and goes beyond the TRACECA region.

	All pro	ducts	Total all	No min. fuel & ores		Total no
Zones	Import	Export	products	Import	Export	min. fuel & ores
Afghanistan-Pakistan	1%	0%	0%	2%	0%	1%
Africa	0%	0%	0%	1%	0%	1%
America	9%	6%	8%	6%	6%	6%
Arabian Peninsula	3%	1%	2%	1%	1%	1%
Area Nes	0%	0%	0%	n/a	n/a	n/a
Belarus	0%	1%	1%	0%	2%	1%
Bulgaria-Romania	4%	1%	3%	0%	0%	0%

Table 4: Distribution of Kazakhstan Potential Trade Partners, 2010, % in trade value







Caucasus	1%	0%	1%	3%	0%	1%
China-Mongolia	22%	26%	23%	29%	29%	29%
Europe	41%	27%	37%	15%	29%	24%
Iran	1%	0%	1%	4%	0%	1%
KY-TJ-TM-UZ	4%	3%	3%	9%	2%	4%
Other Asia Pacific	2%	6%	3%	9%	6%	7%
Russia	6%	20%	11%	10%	15%	13%
Syria-Iraq	0%	0%	0%	0%	0%	0%
Turkey	4%	3%	3%	7%	3%	4%
Ukraine-Moldova	2%	5%	3%	2%	6%	4%
Total	100%	100%	100%	100%	100%	100%

Source: Computation based on Eurostat and UN Comtrade databases

However, the above mentioned trade value indicators present only a part of the picture related to the LOGMOS trade potential for Kazakhstan. For a grounded analysis one should consider the tonnage of export and import flows moving from/to Kazakhstan.

As can be seen from Table 5, below, the estimated tonnage of potential LOGMOS goods exported from Kazakhstan to Europe and other countries of TRACECA region exceeds that of goods imported to Kazakhstan almost threefold. This proves that Kazakhstan is important for TRACECA region in terms of trade generation, especially as far as Caucasus, Europe and Turkey are concerned. Some moderate perspectives also exist for trade with Belarus, Moldova and Ukraine.

## Table 5: Kazakhstan Potential Trade with TRACECA Countries and Europe, 2010, in<br/>tonnes and %

Zones	Tonn	age	Share in trade with TRACECA countries and Europe			
	Export	Import	Export	Import		
Bulgaria-Romania	32,868.9	9,917.0	0.41%	0.37%		
Caucasus	1,513,557.0	48,696.1	18.84%	1.82%		
Europe	1,073,022.8	871,176.7	13.35%	32.59%		
KY-TJ-TM-UZ	2,812,168.5	709,149.8	35.00%	26.53%		
Turkey	1,018,577.9	227,627.8	12.68%	8.51%		
Ukraine-Moldova	558,813.0	761,387.7	7.0%	28.5%		
Total	8,035,709.5	2,673,422.1	100%	100%		

Source: Computation based on Eurostat and UN Comtrade databases

In general terms the potential LOGMOS trade of Kazakhstan with Europe and other countries of TRACECA region is unbalanced (see Figure 4 below). Based on this, one might doubt if the estimated potential for trade between Kazakhstan and other countries of the region could ever be fully realised, first of all, due to considerations of equipment return. In particular, the problem of trade imbalance pertains to the trade of Kazakhstan with Caucasus, Iran, Turkey, Bulgaria and Romania. The trade with Europe, Moldova and Ukraine is well balanced. The volumes of trade with Belarus, although unbalanced are rather marginal, and therefore might not affect the trade pattern significantly.







## Figure 4: Kazakhstan Potential Trade with TRACECA Countries and Europe, 2010, in tonnes







## 6.1.2 Regional TRACECA Trade

To complete the analysis of LOGMOS potential trade in TRACECA region, it is important to consider the commodity structure of particular trade flows.

The volumes of potential LOGMOS imports from TRACECA region to Kazakhstan, although relatively small (2.7 M tonnes), are quite dispersed (see Figure 5 and Table 6 below). The most significant import groups are wooden articles, foodstuff, beverages, tobacco, vehicles (air, land, maritime), but also vegetable products, base metals and equipment, mineral products. In light of this commodity structure, Kazakh imports from Europe, Turkey, Ukraine and Moldova are actually well diversified. Mineral products (salt, sulphur and construction materials) dominate the trade with Iran. Foodstuff, beverage and tobacco make up an overwhelming portion of the imports from Caucasus to Kazakhstan.

Although the total volume of potential LOGMOS exports from Kazakhstan to the TRACECA region is quite significant (8.0 M tonnes), its structure is dominated by only a few broad categories of goods (see Figure 6 and Table 7 below):

- Vegetable products: this category includes cereals, which is one of the key non-bulk commodities exported by Kazakhstan not only to TRACECA, but also worldwide.
- Base metals and equipment: namely, iron and steel products.
- Mineral products: the core of which are formed by salt, sulphur and construction materials (cement, plaster, lime and stone).

Overall, the above mentioned items contribute to more than 90% of exported goods from Kazakhstan. The commodity structure of Kazakh exports, however, varies from region to region. For instance, the exports to Caucasus are dominated by vegetable products (cereals). Base metals and equipment prevail in exports to Iran, Turkey, Europe and Belarus. Mineral products occupy a considerable share of exports to Ukraine and Moldova. Most exports to Bulgaria and Romania consist of chemical products (fertilisers and non-organic chemicals).









## Figure 5: Potential Trade with TRACECA Region – Commodity Structure of Imports to Kazakhstan, 2010, in tonnes and %







## Table 6: Potential Trade with TRACECA Region – Commodity Structure of Imports to Kazakhstan, 2010, in tonnes

Commodity Groups	Bulgaria-Romania	Caucasus	Europe	KY-TJ-TM-UZ	Turkey	Ukraine-Moldova
Animal Or Vegetable Fats	3.4	53.4	1,743.7	2,654.0	4,450.9	35,378.3
Arms And Ammunition	n/a	n/a	125.2	0	42.8	n/a
Articles Of Wood	422.7	624.4	53,517.0	652.6	21,583.5	64,599.7
Base Metals Equipment	2,772.1	2,793.4	73,318.2	30,850.6	27,258.3	94,002.3
Chemical Prod.	2,052.6	1,232.7	106,776.4	89,834.7	20,986.8	29,269.6
Electron., Electr., Equip.	1,497.9	1,675.9	110,788.5	1,944.2	14,639.7	19,031.9
Foodstuffs; Bever., Tobac.	149.2	34,824.0	60,977.1	15,794.6	11,438.1	107,133.6
Land, Air, Maritime Vehicles	82.9	2,236.9	130,046.7	4,586.6	1,935.3	75,831.9
Live Animals & Animal Prod.	862.2	263.6	47,515.4	15,589.2	175.4	52,288.6
Mineral Products	1,080.0	649.1	30,460.9	394,852.1	30,422.7	20,072.0
Miscel. Manufactured Art.	186.6	1,368.6	17,179.6	753.6	6,228.1	8,894.5
Plastics	599.1	1,262.4	65,456.3	9,668.6	30,508.1	10,285.9
Precious Stones & Metals	n/a	1.9	13.9	0.1	52.9	4.1
Pulp/Waste Wood, Paper	46.6	138.5	55,539.4	4,653.9	12,465.7	28,552.2
Skins, Leather	1.0	0.5	244.2	13.3	55.2	1.3
Stone, Cement, Ceramic	47.3	255.5	29,839.4	26,962.2	28,360.6	38,402.3
Textile Accessories	12.1	1.1	870.8	54.5	246.8	205.2
Textiles and Textile Art.	52.3	350.1	7,523.4	3,537.9	13,487.9	2,025.3
Various Instr. and Apparatus	9.5	22.8	2,796.2	4.3	91.8	121.8
Vegetable Products	39.5	941.4	76,440.3	106,692.9	3,196.9	5,639.9
Works Of Art	n/a	0.0	4.1	0	0.5	0.0
Total imports	9,917.0	48,696.1	871,176.7	709,100.0	227,627.8	591,740.4









## Figure 6: Potential Trade with TRACECA Region – Commodity Structure of Exports from Kazakhstan, 2010, in tonnes and %







## Table 7: Potential Trade with TRACECA Region – Commodity Structure of Exports from Kazakhstan, 2010, in tonnes

Commodity Groups	Bulgaria-Romania	Caucasus	Europe	KY-TJ-TM-UZ	Turkey	Ukraine-Moldova
Animal Or Vegetable Fats	n/a	n/a	n/a	48,478.4	n/a	80.6
Arms And Ammunition	n/a	n/a	0.1	0.0	n/a	n/a
Articles Of Wood	n/a	155.2	35.2	1253.1	36.5	1.0
Base Metals Equipment	217.8	86,159.0	375,177.8	217,836.3	412,977.0	140,895.6
Chemical Prod.	32,177.5	10,410.6	109,144.3	41,949.6	2,620.2	22,729.3
Electron., Electr., Equip.	30.9	463.0	1,743.3	1,921.1	170.9	235.9
Foodstuffs; Bever., Tobac.	n/a	1,769.7	16,075.6	83,409.3	40.0	142.9
Land, Air, Maritime Vehicles	5.7	101.6	518.9	2,056.2	23.9	263.6
Live Animals & Animal Prod.	n/a	466.2	7,644.7	1,102.3	797.5	3,893.6
Mineral Products	398.7	153,249.6	170,664.3	774,977.3	52,043.7	308,076.9
Miscel. Manufactured Art.	0.0	40.3	80.3	86.6	26.3	1.9
Plastics	0.1	1,065.3	125.9	6,362.5	410.1	68.9
Precious Stones & Metals	n/a	0.0	358.2	0.1	1.0	0.5
Pulp/Waste Wood, Paper	0.0	25.5	3.8	12,871.8	35.4	30.1
Skins, Leather	n/a	1.2	6,604.1	104.0	368.1	2.0
Stone, Cement, Ceramic	n/a	44.4	5,662.1	27,824.7	5.0	439.5
Textile Accessories	n/a	8.4	2.4	21.7	0.0	0.0
Textiles and Textile Art.	38.2	22.5	23,504.6	684.5	935.2	1,894.9
Various Instr. and Apparatus	0.0	30.0	50.4	69.6	7.7	3.3
Vegetable Products	n/a	1,259,544.5	355,626.1	1,591,190.0	548,079.4	3,325.2
Works Of Art	n/a	0.0	0.9	0.8	0.0	0.0
Total exports	32,868.9	1,513,557.0	1,073,022.8	2,812,200.0	1,018,577.9	482,085.7





Based on the above observations, we can conclude that:

- there is a considerable potential for transporting containerizable and partially containerizable goods between Kazakhstan and TRACECA countries;
- the potential for developing this trade exists in both directions (outbound and inbound trade);
- the outbound flow is much bigger in volume and more concentrated in terms of trade nomenclature than the inbound flow. This provides good perspectives for the utilisation and return of containers and other equipment over the Caspian; and
- although trade flows between Kazakhstan and other TRACECA countries are generally are unbalanced, trade with certain sub-regions, on the opposite, is well balanced. E.g., the trade between Kazakhstan, on one side, and Europe, Ukraine, Moldova and Belarus, on the other side, was balanced at 1.63 M tonnes in 2010. For other regions, it is important to plan shipments well in advance, in order to ensure a due utilisation and return of containers and other equipment to/from Kazakhstan.

## 6.2 Intermodal Maritime Based Transport Challenges

LOGMOS aims to develop seamless door-to-door intermodal services, where all components of the transport chain may be considered as possible segments of LOGMOS projects, depending on their relevance for potential LOGMOS trade flows.

Port interfaces for operations, services, procedures etc. between land and sea are among the most critical points.

## 6.2.1 Port System and Maritime Links<sup>3</sup>

Aktau International Sea Commercial Port (AISCP) is the only commercial sea port in Kazakhstan. Bautino (124 km north of Aktau) is the North-East Caspian oil fields supply base while Kuryk (70 km south of Aktau) is the construction base for the (huge) developments installed at sea in the oil fields<sup>4</sup>.

The majority of the cargo handled at Aktau is the export of crude oil by tanker and rail tank cars on rail ferries predominantly to Baku. Export of grain, steel and steel products (intergovernmental contracts) to Iran, Russia and Baku make up much of the remaining cargo traffic.

Rail ferry and Ro-Ro ferry services operate between Aktau/Baku and Aktau/Makhachkala (Dagestan, Russian Federation).

The rail-ferry terminal was rehabilitated under a previous TRACECA project (EUR 2 M). Technically it operates efficiently.

The port in general is currently operating close to full capacity. The Ro-Ro berth is shared with the grain loading berth, which is itself also operating virtually at full capacity. This causes an ongoing conflict with the generally unscheduled Ro-Ro vessels.

Likewise, the rail ferry ramp berth also serves small tankers which, at times, results in waiting times at roads for the railferries. Still, the oil trade should undergo a temporary but severe drop

<sup>&</sup>lt;sup>4</sup> Kuryk was the docking place where, in 1961, construction materials were shipped to build the port of Aktau



<sup>&</sup>lt;sup>3</sup> More information and data concerning the national port system (including port maps and technical descriptions as well as the regular maritime services operated can be found in the separate <u>maritime</u> report of the LOGMOS Master Plan.





in the coming years with the diversion of substantial flows from Kazakhstan directly to Russia through the existing pipeline network. Rail-ferry trade is also hampered by the port's limited storage and handling capacity for empty and full waggons.Container handling is performed without specialised container handling equipment. The volume of containers handled is low and does not currently warrant other equipment.

Throughput	2007	2008	2009	2010	2011	2012
Containers, TEU	846	700	3638	9970	3402	5,030
Ro-Ro, thousands T	237,8	227,5	221,6	603	1 433	1,383
Number of waggons				9,400	19,000	21,237

## Table 8: Throughput Data of Aktau Port

There are plans to build an extension to the north of the current port. This had originally been scheduled to be completed in 2012/13 with the support of the EBRD. Owing to the global financial crisis and for political reasons, EBRD withdrew and the project is now financed solely by the State-budget.

Aktau is managed and operated by the Republican State Enterprise 'Aktau International Sea Commercial Port' (AISCP) but in early 2013, the Government of Kazakhstan (GoK) decided to transfer the management of the port to Kazakhstan Temir Zholy, the Kazakh State Railways. Discussions are also going on with number 3-world container terminal operator DP World to have them manage (to an undisclosed extent) the port operations and Aktau FEZ. It seems the GoK wants to make a package deal and demands that DP World takes over the management of the Horgos FEZ at the same time. The total investment needed in both locations is valued at about USD 1 bn.

#### Liner Services

CASPAR is the only ferry and Ro-Ro operator in and out of Aktau. The service is performed with rail-ferries of 28 or 52 waggon capacity and small, out-dated Ro-Ros of 33 truck capacity on an unscheduled basis, subject to inducement. Due to the nature of the main exports from Kazakhstan (commodities), the rail trade is imbalanced. Ro-Ro and rail ferry services to Russian ports are extremely irregular.

NATO containers (bound for Afghanistan) are transported from Baku to Aktau in regular cargo vessels (in shipments of about 100 TEUs) but are now increasingly diverted to Turkmenbashi.

Kazakhstan has a shipping Company (Kazmortransflot), which at present operates crude oil tankers and plans to purchase bulkers for grain transportation only. The fleet of "Kazmortransflot" consists of 19 ships, including: 6 bulk-oil tankers with a freight-carrying capacity of 12-13 thousand tonnes; 8 barges-platforms with a freight-carrying capacity of 3,600 tonnes; 5 tows.

Khazar Shipping Company, a subsidiary of IRISL, the national Iranian shipping company, operates breakbulk and semi-containerised services between Aktau and the Iranian ports of Anzali, Amirabad and Nowshahr.

There are no container vessels operating in the Caspian.







## 6.2.2 Inland Transport Mode: Railways<sup>5</sup>

## Figure 7: Kazakhstan Railway Map

Railway network of Kazakhstan (main railway lines and TRACECA routes)



Source: TRACECA (2013)

The Ministry of Transport & Communication (MoTC) in Astana has overall responsibility for the transport sector, covering road, rail, inland waterway, maritime and aviation. The main task in the Program on development of a transport infrastructure in Republic of Kazakhstan is its integration with the Eurasian transport system taking advantage of the country's geo-strategic location bridging Europe with Asia.

As a matter of fact, the main railway lines that connect Europe and Russia with countries of the Asia-Pacific region, Central Asia and Middle East go through the territory of the Republic of Kazakhstan. Railways of Kazakhstan border and interact with railways of Russia, Turkmenistan, Uzbekistan, Kyrgyzstan, China and Azerbaijan (through rail-ferries).

There are several rail international transport corridors crossing the country, which are subject to infrastructure upgrading within a large investment programme. The corridors are identified as follows:

• Central corridor (TRACECA): Europe–Central Asia via the Black Sea; Caucasus and the Caspian Sea (section seaport of Aktau–Beyneu–Makat–Kandyagash–Arys–Almaty–Aktogai–Dostyk border with China).

<sup>&</sup>lt;sup>5</sup> More detailed information on the railway sector of Kazakhstan, figures and state of projects can be found in the separate <u>railway report of the LOGMOS Master Plan</u>





- The Trans-Asian Railway Network (TARN)
  - Northern corridor: Western Europe–China, Korean Peninsula and Japan via Russia and Kazakhstan (section Dostyk–Aktogai–Sayak–Mointy– Astana–Petropavlovsk).
  - Central corridor : It separates from the Northern corridor in Moscow, enters in Kazakhstan at Ozinki, crosses Northern Kazakhstan via Aktobe and Astana where operates at the junction with the Northern Corridor.
  - Southern corridor : South-Eastern Europe–China and South-Eastern Asia via Turkey, Iran, Central Asian states and Kazakhstan (section Dostyk– Almaty–Chu–Arys–Saryagash) the same section in Kazakhstan is also part of the TRACECA Network.
- The North-South corridor stretching from Saint-Petersburg to the Arabo-Persian Gulf via Aktau in Western Kazakhstan
- The CAREC corridors 1, 2, 3 and 6

As can be seen from the map (Figure 7), the network keeps, to this day, the pattern inherited from the Soviet times with a general North-West to South-East orientation and no one track really stretching across the country from west to east. Since independence, Kazakhstan has strived to unify the country's network with the construction of new railway lines.

Out of 17 railway border crossings 11 are with Russia, 3 with Uzbekistan, 1 with Kyrgyzstan and 2 with China. A new border crossing point "Altynkol" opened at Khorgos in 2012.

Over 72% of the total freight volume transported in the country moves by rail. However, a number of rail connections are missing as the railway network remains primarily assigned to the transport of export commodities and raw materials. On the whole, the network is poorly maintained and the rolling stock is ageing and in need of replacement and modernisation (Chinese-built waggons in use in Kazakhstan cannot be operated in Russia for instance). The average speed of rail cargo transport is 49.03 km/h.

The Kazakh railways are managed by the National Joint Stock Company "Kazakstan Temir Zholy" (KTZ), which is the 1<sup>st</sup> employer in the country (160,000 employees in 2012). In 2002 KTZ was converted in a closed joint-stock company, a move intended to improve management and accounting methods. KTZ is entrusted with the management and maintenance of the rail infrastructure, as well as operations of passenger and freight services. The state retains ownership of the railway's infrastructure and rolling stock. KTZ acts as a holding company, with 26 wholly owned subsidiary joint-stock companies providing key functions such as the management of passenger and freight services, infrastructure maintenance, traction and rolling stock provision and maintenance and telecommunications.

Among them, Kaztemirtrans operates the freight rolling stock and is responsible for the transportation of cargo and Kaztransservis is responsible for planning the transportation of cargo in containers and freight cars, and for coordination with other railway administrations.

KTZ is organised in five operating regions that have the status of state enterprises under the close supervision of Kazakhstan State Railways.

In 2013, KTZ announced their plan of creating a national multimodal operator on the base of KTZ, which shall combine rail transport, port infrastructure and sea transport, trucking and terminal network. Well-known international operators will manage the major transport and logistics facilities (Dubai Port World is in talks with the GoK for managing Aktau seaport and the FEZ 'Khorgos - Eastern Gate' while the airport holding of 11 airports will possibly be managed by Swissport). KTZ is accordingly scheduling to perform a re-branding by the end of 2013.The network comprises 14,800 km of lines:





Total route length (km)	Gauge (mm)		
14,800	1,520		
Electrified lines (km)	Electrification system		
4,200 * 25 kV AC			
* some sections are electrified at 3 kV DC			

## Table 9: Main Features of Kazakhstan Railway Network

The Kazakh system has many long stretches of single track although over one third of the network is double track (about 4,800 km).

The main route is the 1,507 km Trans-Kazakhstan Railway running from Petropavlovsk on the Trans-Siberian Railway through Kokshetau, Astana and Solonichki to the Karaganda coalfield. This was later extended to Cho, on the Turkestan-Siberian route, and Lugovoy where it connects with lines into Kyrgyzstan and Uzbekistan.

The Turkestan-Siberian route runs 1,445 km from Semipalatinsk via Aktogai to Almaty and Chu. From Aktogai the line to the Chinese border at Dostyk now forms part of a route from Beijing to Russia.

A third main line in the west of the country (1,850 km) links Tashkent, in Uzbekistan, with Orenburg in Russia, via Aralsk and Kandagach. This line is also connected to Aktau port currently from Kandagach via Beyneu.

The total volume of freight transportation of KTZ in 2012 amounted to 294,716 M T out of which 34% were export, 54% were domestic, 7% were import and 5% were transit. The evolution of the freight turnover from 2002 to 20120 is constantly increasing, with the exception of 2009 due to the GFC, as presented in the Figure below:



Figure 8: Dynamics of Freight Turnover from 2002 - 2012, (T-km)

This positive trend is explained by the high and continuous growth of the Kazakh economy and the increasing number of container trains going from Western China to Europe transiting via Kazakhstan.

Indeed, the exploitation of the transit potential of Kazakhstan, known as the revival of the Silk Wind, is today a major priority for Kazakhstan's development. Transit route is a major earner and perspective of development in the future is huge.







Over the last years, Kazakhstan has strived to develop favourable conditions to attract transit traffic, in particular from China to Europe. The infrastructure was developed and the organisation of the container trains route, for which KTZ is responsible, was improved in collaboration with foreign rail operators

As a consequence, the number of container trains is increasing every year. In 2007, 1,006 container trains were organised on the routes Almaty–Alashankou (Dostyk), Nakhodka (Russia)–Locot'–Almaty, Nakhodka–Locot'–Saryagash (Kazakh-Uzbek border)–Assake (Uzbekistan), Lianyungang (China)–Almaty, Lianyungang–Assake, Tianjin (China)–Almaty. In 2012, 1,335 container trains were organiser whereas for 2013, the projected figure is 1,540, which represent a 50% increase, compared with 2007.

The container train Chongqing–Duisburg is a great example of a successful implemented project linking China to Europe by rail that carries the objective to divert cargo from sea to rail. Launched in 2011, the 10,769 km journey can be travelled in 15.9 days, at an average speed of 677 km/day. This container train, carrying HP computer equipment, was implemented thanks to the cooperation of four rail operators: DB (Germany), RzhD (Russia), KTZ (Kazakhstan) and CRIMT (China), which created the JV "YuXinOu Logistics Company Ltd" to operate the train (see Figure 9 below).

In 2011, 14 trains carrying 548x40 f-t containers used the Chongqing-Duisburg route whereas in 2012, there were roughly 40 trains for a total cargo volume of 1,745x40 f-t containers. KTZ forecasts the number of container trains to increase to 65 in 2013 and 172 in 2016. The travel-time is expected to reach 14 days in the near future.



#### Figure 9: The Route of the Chongqing–Duisburg Container Train

Following the success of the Chongqing-Duisburg line, new routes from China to Europe were developed:

- Wuhan–Pardubice (Czech Republic) opened in October 2012
- Chengdu–Lodz (Poland) opened in May 2013
- Zhengzhou–Hamburg (Germany) opened in July 2013

## The development of the railway network

To create a more consistent national network many new sections have been built during the last ten years to avoid domestic traffic passing through neighbouring countries.

In 2012, two new lines were put in operation:

• Zhetygen–Korgas: 293 km of double track railway line to the China border. The line opened in December 2012. It shortens the TRACECA route by some 500 km





 Uzen–Turkmenistan border: 146 km of new line, which will link the Kazakh rail network to the border with Turkmenistan (from Aktau). This is part of a new line that will connect Kazakhstan, Turkmenistan and Iran. Total length is 686 km (470 km in Turkmenistan, 146 km in Kazakhstan and 70 km in Iran). For the Kazakh section works started in 2009 and were completed in 2011. In Turkmenistan, the line is still under construction while the Iranians have recently inaugurated their section.

Futhermore, two major "links" are under construction:

- Arkalyk–Shubarkol: 214 km. linking the oblast of Karaganda with the oblast of Kostanay. This new link, across the centre of Kazakhstan, will offer shorter transit time for the transport of coal and grain to the South of the country. Works are expected to be completed in 2015.
- Beyneu–Zhezkazgan: This new line will be a 988 km double track railway line which will shorten the route from Central to West Kazakhstan and from China to Aktau by about 1,000 km (transit-time should be reduced by 3 to 5 days). The project comprises two sections "Beyneu-Shalkar" (471 km) and "Saksaulskaya-Zhezkazgan" (517 km). A line between Shalkar and Saksaulsaya already exists. The expected completion date is 2016.

Altogether Kazakhstan plans to build 2,500 km of new railways in 2013-2015.

KTZ, together with the French company Systra, will soon start implementation of the largest project in the history of the country's railways, which involves building of a 1,100 km long high-speed railway line between Astana and Almaty. The total volume of investments in the construction of this new railway line will amount to USD 600 M. The maximum speed on the line will be 250 km / h. The project is scheduled for completion in early 2017.

Some years ago KTZ planned the construction of a 3,038 km standard-gauge railway (1,435 mm) to connect China with Aktau and Western Europe, to eliminate the necessity of transshipment to 1,520 mm vehicles at the China-Kazakh border. This huge project has been dropped.







## 6.2.3 Inland Transport Mode: Roads<sup>6</sup>

## Figure 10: Kazakhstan Road Map

Road network of Kazakhstan (highways, main roads and TRACECA routes)



Source: TRACECA (2013)

The road network is made up of 88,400 km (6.2% are unpaved). This relatively small figure yields a road density indicator of 31.4 km per thousand sq. km. The improvement of the road network is to boost national economy and increase the transit potential of the country is a major priority for Kazakhstan.

Thanks to its strategic location, Kazakhstan is crossed by numerous international roads. They cover about 12,300 km. The main international road axis crossing Kazakhstan, so-called "Western China–Western Europe" corridor, lay in North West–South-East direction following the route from the Russian border at Cheliabinsk to the Chinese border at Khorgos. Besides, Kazakhstan there is also the international corridors of CAREC and the North-South and Asian Highways. The following table presents a list of the European roads crossing Kazakhstan.

<sup>&</sup>lt;sup>6</sup> More detailed information on the road sector of Kazakhstan, figures and state of projects can be found in the separate <u>road report of the LOGMOS Master Plan</u>





## Table 10: List of European Roads Crossing Kazakhstan

Main European roads in Kazakhstan		Other European roads in Kazakhstan		
No	Route	No	Route	
E38	Russian border – Uralsk – Aktobe – Karabutak – Aralsk – Novokazalinsk – Kyzylorda – Shymkent	E004	Kyzylorda – Uchkuduk/Uzbekistan - Buchara/Uzbekistan	
E40	Russian border – Atyrau – Beyneu – Uzbekistan border – Shymkent – Taraz – Kyrgyz border	E012	Almaty – Kokpek – Chundzha – Koktal – Khorgos	
E121	Russian border – Uralsk – Atyrau – Beyneu – Shetpe – Zhetybai – Fetisovo – Turkmen border	E016	Zapadnoe – Zhaksy – Atbasar – Astana	
E123	Russian border – Podgorodka – Kostanai – Zapadnoye – Esil – Derzhavinsk – Arkalyk – Zhezkazgan – Kyzylorda – Shymkent – Frontovoy – Uzbek border	E018	Zhezkazgan – Karaganda – Pavlodar – Uspenka	
E125	Russian border – Petropavlovsk – Kokshetau – Shchuchinsk – Astana – Karaganda – Balkhash – Burubaytal – Almaty – Kyrgyz border	E019	Petropavlovsk – Zapadnoe	
E127	Russian border – Karaman – Pavlodar – Semey – Georgiyevka – Maikapshagai at China border			

The Road Development Program of Kazakhstan Republic for 2006-2012 focused on the following strategic corridors, identified by the Government of Kazakhstan:

- (1) Uzbekistan border Shymkent Taraz Bishkek Almaty Korgas border with China
- (2) Shymkent Kyzylorda Aktobe Uralsk border with Russia
- (3) Almaty Karaganda Astana Petropavlovsk
- (4) Border with Russia Atyrau Aktau Turkmenistan border
- (5) Border with Russia Pavlodar Semipalatinsk Maikapshagai border of China
- (6) Astana Kostanai border of Russia

The "Western China–Western Europe" corridor is formed by corridors 1 and 2, linking in Shymkent.





# egis International **DORNIER**

#### Logistics Processes and Motorways of the Sea II



## Figure 11: Kazakhstan Strategic Road Corridors

The length of the above mentioned corridors totals 8,258 km. The highest traffic levels have been observed on the sections of road that span the Uzbek border to Korgas (over 7,000 vehicles per day) and the Uzbek border to Ural (over 3,000 vehicles per day). The capacity of these particular segments reaches 100%. At the same time, on some other segments, for instance from Russia to Turkmenistan via Atyrau and from Astana to Russia via Kostanai, the road traffic hardly reaches 50% of the design capacity.

In view of the current traffic intensity and its anticipated increase, the Government of Kazakhstan plans to upgrade the quality of roads along the above mentioned international transport corridors. At present, it is planned that the reconstructed international roads should be upgraded to meet the requirements for III category (up to 10t per axle). In the future it is expected that the international roads will be upgraded to meet the requirements for II category (at least 13t per axle) and I category. In 2005, the category I and II roads constituted 5.5% of public road network in Kazakhstan with III category making up 40%.

The network is, however, poorly maintained, especially in rural areas. Poor signage is common, as well as potholes, which are often dangerously deep making night driving perilous.

The quality of road coats is an issue. One half of republican roads require maintenance/rehabilitation; 40% of local roads are considered to be in poor quality. The effective traffic regulations allow for the following vehicle dimensions: up to 4 m in height, 2.55 m (2.6 m for insulated bodies) in width and 12-20m (12m for buses, trucks and trailers; 20m for articulated vehicles and road trains) in length. The weight restrictions are: 18-32t for trucks, 18-28t for buses, 36-38t for articulated vehicles and 36-44t for road trains. According to effective regulation, the velocity of oversized and overweight vehicles should not exceed 50km/h on public roads and 10km/h on artificial structures. Oversized and overweight transport is charged a fare, which varies depending on the weight and size parameters of the vehicle and the distance of trip. The transport routes for oversized and overweight vehicles should be accorded with the relevant institutions and are authorised for either a single trip or up to 3 months.





Road construction standards do not match the actual vehicle loadings. Existing weight and axle load limitations, which are less than European standard ones, cause a lot of difficulties and are thus bypassed.

As a result, road transport safety has become a major problem with about 3,500 people killed each year in road accidents (about 180 persons per million inhabitants, versus 52 in the UK for instance) and an annual increase of road accidents of 10-15% over the past 5 years. Road conditions and a number of missing connections encourage truck drivers to make long detours that increase mileage and add to expenses. In addition, it is worth mentioning that soon motor vehicles will also be charged for the use of toll motorways. The following roads and segments in toll operations have been planned: Astana – Shushchinsk, Astana – Karaganda, Almaty – Kapchagai and Almaty – Korgas. One of them (Astana – Shushchinsk) has already started operations.

In addition to the aforementioned, users report the following:

- Trucks spend several days at the border waiting for the convoy to be formed
- Documents are rechecked, regardless of the regime under which the goods are carried, at each of the numerous mobile checkpoints run by the State Road Inspection, which brings about further delays (this long-standing issue is however under review at parliamentary level)
- Considering the usually long distances to be covered into and out of Kazakhstan, the 5day delay for registration for foreign drivers is too short (a draft proposal to extend it to 14 days is under consideration)
- Customs demand additional documents for cargo transported with TIR Carnet
- The aforementioned weakness of the shipping service between Aktau and Baku brings about delays as long as 7 days for drivers crossing the Caspian Sea and discourages many trucking companies to use this route.

These factors have a negative impact on the enhancement of the road transport and do not allow Kazakhstan to make the most of its favourable geostrategic location at the heart of the Eurasian continent. Nevertheless, a huge program of communication network development, encompassing the whole Central Asia, has been launched with the support of ADB through CAREC Program.

One of the key infrastructure projects deals with the improvement of South–West roads (Western China–Western Europe international transit corridor CAREC 1B and 6B). The project will help the GoK to upgrade and reconstruct road sections within the Kyzylorda oblast and the neighbouring South-Kazakhstan oblast (up to Shymkent), which is one of the most stringent sections in the country. The total length of the corridor is 8,445 km, out of which 2,787 km pass through the territory of Kazakhstan. The Kazakh part of the corridor is split into 37 lots of which 33 will be reconstructed at the expense of public lending, two, funded by concessioners (Almaty–Khorgos and Uzbek border–Shymkent–border of Zhambyl region) and the remaining two, at the expense of the republican budget. 50% of the route will be upgraded up to category I with the remaining sections becoming category II. Given its importance on an international scale, the project is financially supported by the WB (USD 2,125 M), the ADB (USD 702 M), the IsDB (USD 394 M), the EBRD (USD 180 M) and the JICA (USD 68 M). The expected completion date is 2015.

Among the other key infrastructure projects the WB are involved in is the rehabilitation of the following sections: Almaty–Kapchagai (104 km), Astana–Karaganda (238 km including the bypass of Karaganda), Almaty–Khorgos (342 km) and Aktau–Beyneu (446 km).







In its Development Strategy to 2050, Kazakhstan describes the ambition to build a dense network of highways. By 2017, the sections "Western China–Western Europe" corridor, Ust-Kamenogorsk-Beyneu, Almaty-Petropavlovsk, Atyrau-Aktobe, Arkalyk-Petrpavlovsk are expected to be fully completed or under completion.



## Figure 12: Kazakhstan Highway Network by 2050

Source : Ministry of Transport and Communications of Kazakhstan

## 6.3 Trade and Transit Facilitation

- General Presentation
- **Procedures and formalities** are among the **main barriers** that hamper the development of Motorways of the Sea:
  - Several border points must be crossed, mostly at ports but also on land routes e.g. along the central land corridors: there is a minimum of 2 points in a single/one sea service, up to 5 points in inter-seas services linking western Black Sea Countries and Eastern Caspian Sea Countries, and possibly more in the case of longer multicountry transit and transshipment trade.
  - Several physical mode transfers, handling movements and intermediate storage operations take place along sea-based transport chains: commonly 3 transfers and a minimum of 6 handling, plus 2 storages in the case of a single sea leg, and several more handling operations in the inter-seas services.
  - Previous and ongoing experiences of Motorways of the Sea in other regions, as well as the global worldwide transport system of containers, have demonstrated that the resolution of difficulties in this field is an essential factor for success.
- The procedural process in ports and at other border crossing point are **dominantly** related to Trade Laws and Regulations, but actors of the transport and transit chain are responsible for their fulfilment. A significant part of their activities is to deal with these complex issues and draw the corresponding revenues out of their capacities.





- Relationships between institutions on one side,-Customs first, but also other Ministries and inspection bodies, and operators and users on the other are affected by these functions that mix with the physical transit and transport operations.
- The **impacts of administrative and regulatory barriers** are generally more important when there is a sea leg since:
  - maritime transport and port transits require more formalities than land transport modes, including specific exchange of information, paper documentation etc., which are rightly perceived as a factor of complexity;
  - this adds to the weakness of intermodal sea based transport, particularly when compared to the most simple unimodal road transport;
  - transit times are increased if and when formalities and operations are mismatching, e.g. when the transport means one mode is not coordinated with those in the next mode, which is a frequent situation between the maritime and railways legs in the TRACECA Region;
  - costs are not only direct but also indirect, not only formal but also informal, and unofficial transit levies and other transaction costs add to the sum of official tariffs, taxes and dues.
- Common weaknesses/barriers have been identified in all LOGMOS project Countries to various extents and at different degrees. This diagnosis has been shared under the key word "Facilitation" by Country stakeholders and at bilateral and regional levels. Barriers in this field are referred to in the "W" (Weaknesses) list of the various SWOT analyses summarised in the following project documents:
  - Country profiles, as synthesised hereafter
  - Presentations for workshops and meetings
- Among the **solutions** discussed in the diagnosis phase, the following is a series of common **recommendations and targets** that are partly implemented, planned, or contemplated for the future LOGMOS projects and more generally for the development of intermodal transport including port/border crossing points:
  - I.T. systems and solutions electronic solutions / EDI for:
    - information (for users and operators)
    - declarations
    - pre-alert (for Customs and other)
    - duties, taxes and fees
  - One stop scheme and extension to Single Window System (SWS)
  - Risk management system and methods
  - IT interchange solutions between MoS port/communities
  - Tracking and Tracing (in coordination with operators)
  - Upgrading/Redesigning border point layouts
  - Training (management, IT organisation etc.).

## 6.3.1 SWOT Analysis

The following table summarises key-findings for national SWOT analysis in trade and transit facilitation procedures that have been adopted in Kazakhstan.





## Table 11: SWOT Analysis in Trade and Transit Facilitation Procedures

STRENGHTS	<ul> <li>Customs Administration strategy.</li> <li>WCO and Kyoto Conventions ratified by Parliament.</li> <li>World Bank Customs equipment and infrastructure project.</li> </ul>
WEAKNESSES (BARRIERS)	<ul> <li>Customs Codes changes and lack of consistency for importers and exporters e.g. in tariff method.</li> <li>Long procedure times for exporters and importers to prepare documents and for controls adding days to operation waiting time</li> <li>Recent new law requiring Customs brokers to have high capital liability reducing market access on broking market.</li> <li>Integrity issues at border crossing points and at inland clearance depots and inland logistics centres.</li> </ul>
OPPORTUNITIES	<ul> <li>IT solutions for pre-import and pre-export declarations, electronic exchange of ships manifest complying with the provisions of IMO FAL Convention.</li> <li>Implementation of Single Window System.</li> <li>"One Stop Shop" pilot project at border crossing points, and Integrated Border Management (IBM)/Combined Border Management pilot.</li> <li>Possible extension of above joint pilot project to border crossing points including Caspian ports.</li> <li>National trade and transport trade facilitation strategy linking Customs, transport providers and border crossing point agencies in regional strategy.</li> <li>Facilitation "KAZPRO" forum</li> </ul>
THREATS	<ul> <li>No or slow implementation of policy measures to reduce weaknesses/barriers</li> <li>Improved facilitation along competing land corridors</li> </ul>





## 7 PILOT PROJECTS SELECTED FOR MOS I AND ILC PROJECTS

To address the existing challenges for MOS and ILC promotion, two TRACECA projects ran a pre-screening for potential pilot projects. The pre-screening was based on the multi criteria analysis of the proposed pilot, which helped to narrow down the pilot projects list.

The list of retained pilots included the following projects:

Pilot project	Service proposed	Countries involved directly	Concerned TRACECA project	
CS1 Baku – Aktau	Improving existing rail / Ro-Ro / container intermodal transport	Azerbaijan Kazakhstan	MOS project	
Aktau ILC	International Logistics Center at Aktau Port	Kazakhstan	ILC project	

## Table 12: Selected Pilot Projects in Kazakhstan

As a result of the first phase of MOS I and ILC implementation feasibility studies were elaborated for the above pilot projects. Short summaries of these projects can be found <u>here</u>.

