"Promoting good governance at border crossings, improving the security of land transportation and facilitating international transport by road and rail in the OSCE region"

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# Using Transit Transportation Potential of Central Asian Countries:

# **Challenges and Opportunities**

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## LIST OF ACRONYMS

AMMTP	_	The Aktau International Merchant Seaport
APR	_	Asia-Pacific Region
CA	_	Central Asia
CAR	_	Central Asian Region
CCC of the MoF	_	Committee for Customs Control of the Ministry of
of the RoK		Finance of the Republic of Kazakhstan
CIS	_	Commonwealth of Independent States
EU	_	European Union
EurAsEC	_	Eurasian Economic Community
IRI	-	Islamic Republic of Iran
KZT	_	Kazakhstani Tenge
PRC	-	People's Republic of China
SCO	_	The Shanghai Cooperation Organization
TRACECA	_	Transport Corridor Europe-Caucasus-Asia
UN ECE	_	United Nations Economic Commission for Europe
UN ESCAP	_	United Nations Economic and Social Commission for
		Asia and the Pacific
USSR	_	Union of Soviet Socialist Republics
XUAR	_	Xinjiang Uygur Autonomous Region

#### INTRODUCTION

The goal of this study is to analyze the current status of transit transportation in the Central Asian Region (CAR) and the development trends, as well as to determine a set of measures required to fully use the transit transportation potential in CAR countries.

Growth rates of the CA national economies differ, which is illustrated in Figure 1. However, high growth rates have been typical for the external trade of these countries during several recent years (Annex A), thus limited items of raw commodities continuously dominating in the export structure and trade concentrating on few countries (Annex B).

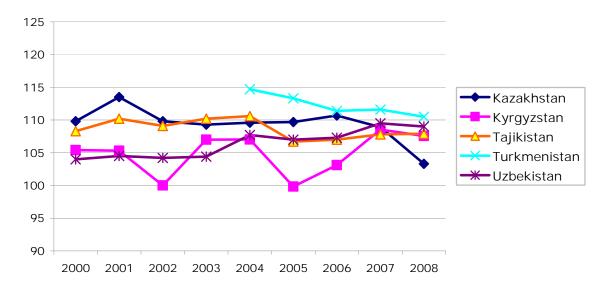


Figure 1 GDP Dynamics in CA countries

Due to the fact the CA countries are land-locked, integration into the global trade system, liberalization of external trade policy and regional cooperation in transportation and transit are closely interrelated for them. Liberalization of trade policy between one of the CA countries and its trade partner, which have no common borders with, will not result in a considerable expansion of bilateral trade if the traffic of vehicles and goods via the transit countries is hindered because of the deficiencies in transportation and customs infrastructure of non-physical barriers<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>Re. Central Asia: How to Improve the Trade Benefits through Regional Cooperation in the Fields of Trade Policy, Transportation and Customs Transit. ADB, 2006.

# **1** Role of Certain Transportation Modes in Formation of Transit Transportation Potential of CA Countries

CA countries are situated on the inland part of the Asian subcontinent, which determines the role and importance of certain transportation modes in transit transportation via their territories. Thus, the area of five CA countries is a little larger than 4 mln. km<sup>2</sup>, which is only by 0.3 mln. km<sup>2</sup> less than the territory occupied by 27 EU countries. With such territorial separation of countries and economic development regions, efficient inter-state physical distribution of goods can be provided only by use of transportation modes able to carry out mass transportation at relatively low labor and material costs. For inland countries, such transport modes are railroad (if we are talking about the common carrier) or pipeline transport used mainly for hydrocarbon transportation. In effect, these objective peculiarities determine the leading role of the railroad transportation in the field of transit transportation in the CA countries.

CA countries		Transit transportation volume, MM t										
CA countries	railroad	automobile	air	inland water	sea	total						
Kazakhstan <sup>2</sup>	15.5	0.3	0.0	-	0.01	15.81						
Kyrgyzstan	-	N/A	0.0	-	-	N/A						
Tajikistan	9.0	0.2	0.0	-	-	9.2						
Turkmenistan	5.8	N/A	0.0	-	N/A	5.8-6.0						
Uzbekistan	11.0	0.4	0.0	-	-	11.4						

Table 1.1 – Role of certain common transport modes in transit transportation

At the same time, availability of a relatively developed road system in the region, some sections of it being a part of CIS and EurAsEC automobile road network, of the Asian highway system, as well as successful competition of automobile transport with railways when carrying perishable and high-value cargoes, create certain favorable environment for the development of automobile transit transportation.

Opportunities for a full-fledged implementation of the CA countries' transit potential are associated to a large degree with the expansion of the commercial navigation, which was preconditioned by the development of the Aktau International Merchant Seaport (Kazakhstan) and Turkmenbashi port (Turkmenistan) on the Caspian Sea.

The current potential of the sea transport in transit carriage is not used to a full extent.

The role of the air transport in the transportation of transit cargoes is minor; as a rule it is limited to transport of mail, luggage and covetable items.

As far as the inland water transport is concerned, it should be noted that CAR countries have no opportunities for organizing transit by this transport mode.

<sup>&</sup>lt;sup>2</sup> Railroad transit figures are provided by departmental railroad statistics, and sea carriage figures - by the Aktau International Merchant Seaport (AMMTP)

#### 2 Railroad Transit Transportation Potential

#### 2.1 Transportation Volume and Dynamics

#### Kazakhstan

The current share of transit is about 6 % of the total volume of transportation by the country's railroad system. The figures showing the dynamics of transit flows are given in Table 2.1.1.

According to the above figures, during the Soviet period (1989) the transit volumes carried by the Kazakhstani railroad system were formed primarily through interregional links of Russia and other republics of the former Soviet Union. Following the formation of the independent states on the territory of the former USSR, the transportation geography changed significantly. Transportation of Russian cargoes within East-West communications shifted to duplicate routes of the Russian roads, which was also true for the transportation between the Ural, Volga and southern Russian regions. Besides, as a result of the economic crisis of the 90-s trade and economic relations shrinked dramatically between Russia and other European countries with the CA republics.

Table 2.1.1 – Dynamics of transit transportation by the railroad system of Kazakhstan during 1989-2008

Directions of Communications	Volume of transit cargo traffic by years (MM t)								
Directions of Communications	1989	1999	2000	2004	2007	2008			
Total	105.7	4.9	5.6	8.5	13.2	15.5			
Of which:									
Eastern regions of Russia - West	20.8	-	-	-	-	-			
CA – East, West	66.1	4.3	5.0	7.4	11.7	14.1			
The Urals – European and Asian regions (including via the Aktau port)	15.7	-	0.2	0.1	-	-			
Within the Central Asian region	3.1	0.2	0.3	0.3	0.3	0.3			
China – West, South (except for CA)	-	0.3	0.1	0.7	1.1	1.0			
Others – West, East, South (except for CA)	-	0.1	-	-	0.1	0.1			

Under the influence of those processes, during 1989-1999 the volume of transit transportation declined by more than 20 times, and the share in the total transportation volume dropped from 20% to 4%. Subsequent years featured a slow transit growth, primarily through the development of external economic links of the CA countries.

At the same time new transit routes via Kazakhstan were formed at the background of economic growth of the countries attracted to the transportation network of Kazakhstan by their

territorial situation. In this regard it is worth mentioning, above all things, an accelerated growth of trade between China and the Western and Middle-Eastern countries, as well as the development of trade and economic relations between the European countries and the Asian Pacific Region with the countries of the Middle East.

The formation of those transit routes was facilitated by the opening of Dostyk border crossing and the development of the Aktau sea port, its transit potential not used to the full extent so far.

The structure of the current railroad transit via the territory of the Republic of Kazakhstan through the regions of formation and ending of transit flows is shown in Table 2.1.2.

The data shown in the Table prove that the main areas where Kazakhstani railroad transit is currently formed are the following three regions – Russia, China, and CAR, where about 84 % of transit flows are formed and 86 % of them end.

	Ending regions, %										
Formation regions	Russia	China	CAR countries	Ukraine	Western Europe, Scandinavia	Middle East	Others	Total			
Russia		1.8	42.3			1.9	-	46.0			
China	4.0		11.5	0.1		0.1	0.3	16.0			
CAR countries	7.3	1.2	2.2	1.6	6.7	0.9	1.6	21.5			
Others	0.1	0.2	15.8			0.4		16.5			
Total	11.4	3.2	71.8	1.7	6.7	3.3	1.9	100			

Table 2.1.2 – Structure of railroad transit via the countries of cargo formation and ending (2008)

At present, developing trade relations between CAR countries and Western and Scandinavian countries, as well as between Russia with European countries and Middle East start influencing the process of transit formation.

Important peculiarities of transit cargo flow dynamics during 1989-2008 are radical structural changes by cargo types (Table 2.1.3).

The figures in the Table below show that in the 80-s of the last century bulk cargoes (such as coal, ore, timber, etc.) prevailed (about 79%) in the transit structure, but since mid-90-s their share decreased dramatically as a result of growth of "other cargoes" category, which includes processing industry products and consumer goods. These changes were considerably predetermined by the fact the countries, which were formed at the territory of the former USSR, were striving at maximum possible use of local raw materials and energy resources, their transportation at long distances being inefficient.

Exceptive are oil, timber and metal products, their share in the structure of the Kazakhstani transit being rather high and showing growth trend. This is objectively determined by

transportation of these products from Russia to the CAR countries incurring a deficit of these types of products.

Type of course				Volum	e, mln t			
<b>Type of cargo</b>	1989	1995	2001	2004	2005	2006	2007	2008
Coal, coke	15.8	0.4	0.2	0.1	0.1	-	0.1	0.2
Oil products	9.6	0.7	0.3	1.1	1.3	1.8	2.3	2.9
Ore	2.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
Metals	8.5	0.6	0.4	0.7	0.4	0.4	1.2	1.3
Timber	13.4	0.5	0.2	0.8	1.5	1.9	2.2	2.4
Construction materials	9.3	1.0	0.2	0.5	0.3	0.3	0.4	0.7
Fertilizers	3.2	0.3	0.2	0.3	0.5	0.5	0.8	0.6
Corn	8.4	1.8	0.3	0.2	-	-	0.3	0.7
Others	35.3	4.2	3.6	4.6	4.5	5.0	5.7	6.2
Total	105.7	9.7	5.6	8.5	8.8	10.1	13.2	15.5

Table 2.1.3 – Dynamics of transit volumes by major types of cargo during 1989-2008

Figure 2.1.1 shows the distribution of cargo traffic along domestic (national) railroad transit corridors in Kazakhstan.

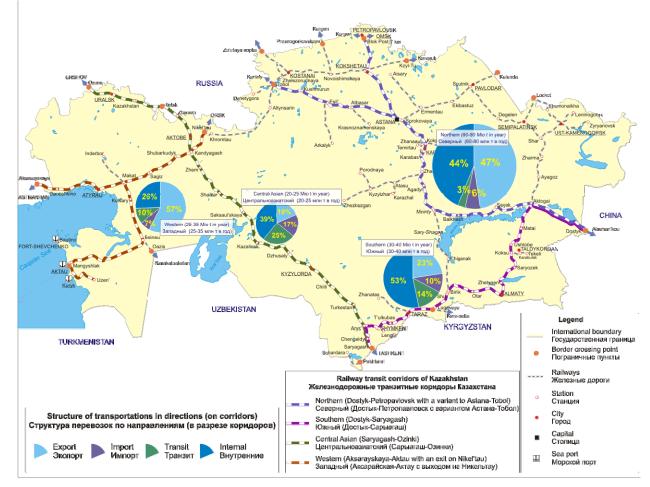


Figure 2.1.1 Distribution of Cargo Traffic Along Domestic (National) Railroad Corridors in Kazakhstan

#### Kyrgyzstan

At present the railroad network in Kyrgyzstan represents isolated and non-connected deadend lines, therefore transit transportation is not carried out over it.



Figure 2.1.2 Railroad Network of Kyrgyzstan

#### Tajikistan

The current share of transit (9 mln. t) is about 6% of the total volume of railroad transportation in Tajikistan. The figures describing railroad transportation dynamics are given in Table 2.1.4.

The Tajik railroad consists of three sections – Northern (Sogdy sector), Central (Dushanbe sector), and Southern (Khatkon sector) ones (re. Figure 2.1.3). All transit cargoes are carried through the Northern section of the railroad network. The majority of such transportation is carrying Uzbek cargoes, as the center of this country is connected with three densely populated regions situated in the Fergana Valley, only by high-mountain motor road via the Kamchik Pass and Sogdy section of the Tajik railroad. The Northern sector of the Tajik railroad connects the Southern section of the Kyrgyz railroads with the main railroad of Uzbekistan and further Kazakhstan.

Major cargoes transited through the railroad system of Tajikistan are oil products (56.6% of total transit in 2008), fertilizers (6%), cement (5.1%), wheat and flour (4.9%), automobiles and spare parts (4.6%).

Table 2.1.4 – Dynamics of railroad transportation by railroad network of Tajikistan during 2004-2008.

	Domestic		Ex	Export		Import		nsit	Total		
	volume, k t	in % to previous year									
2004	135.4		977.3		3108.4		8047.2		12268.3		
2005	146.1	107.9	870.8	89.1	3441.1	110.7	7656.2	95.1	12114.2	98.7	
2006	148.4	101.6	945.6	108.6	4242.6	123.3	8607.2	112.4	13943.8	115.1	
2007	137.2	92.5	1135.6	120.1	4604.0	108.5	8653.4	100.5	14530.2	104.2	
2008	122.2	89.1	995.0	87.6	4437.8	96.4	9000.0	104.0	14555.0	100.2	
2008 to 2004 in %	90.3		101.8		142.8		111.8		118.6		

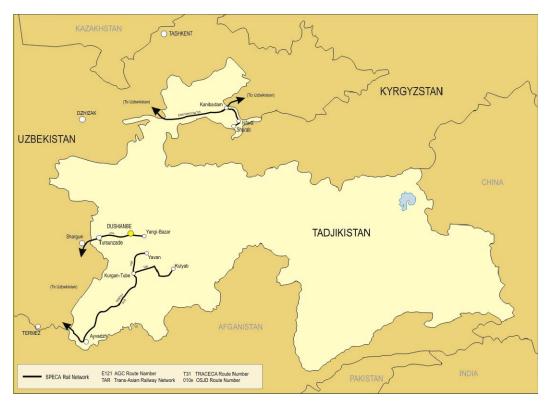


Figure 2.1.3 Railroad Network in Tajikistan

#### Turkmenistan

The data characterizing the dynamics of domestic, export import and transit traffic through the railroad network of Turkmenistan are shown in Table 2.1.5. The total volume of railroad transportation in Turkmenistan was about 18.6 mln t in 2008, of which the volume of

international transportation was 9.2 mln t. The share of transit in the total volume of railroad transportation of Turkmenistan is rather high – it ranges from 41% in 2006 to 31% in 2008.

About one-third of the total transit transportation by the railroad network of Turkmenistan is formed by the relations of CA countries with Iran through Sarakhs checkpoint (Figure 2.1.4).

Certain share of transit is made up by cargo traffic between European and Caucasian countries and CAR via Turkmenbashi seaport. On the 13<sup>th</sup> of May, 1996, an agreement was signed between the governments of Uzbekistan, Georgia, Azerbaijan and Turkmenistan on arranging railway ferry crossing between Turkmenbashi and Baku seaports.

Table 2.1.5 – Dynamics of railroad transportation by railroad network of Turkmenistan during 2005 – 2008.

	Dom	iestic	Export		Import		Tra	insit	Total	
	volume, k t	in % to previous year	volume, k t	in % to previous year	volume, k t	volume, k t	in % to previous year	volume, k t	in % to previous year	volume, k t
2005	9793.0		1289.5		1029.3		7577.3		19689.1	
2006	9498.6	97.0	1574.4	122.1	682.8	66.3	8165.8	107.8	19921.6	101.2
2007	9919.2	104.4	1283.0	81.5	1244.9	182.3	8544.6	104.6	20991.7	105.4
2008	9437.9	95.1	1047.1	81.6	2290.8	184.0	5820.9	68.1	18596.6	88.6
2008 to 2005 in %	96.4		81.2		222.6		76.8		94.5	

Major transit cargoes are oil products (13.7% in 2008), grain and flour (12%), cotton (9.5%), and ferrous metals (5.8%).

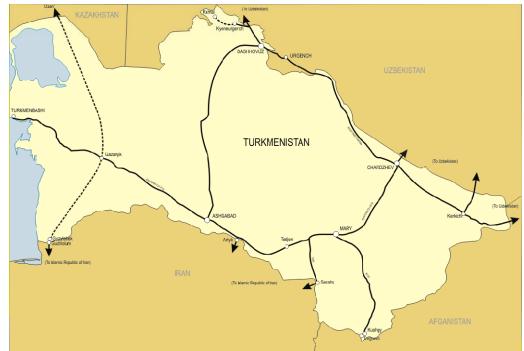


Figure 2.1.4 Railroad Network in Turkmenistan

#### Uzbekistan

The current share of transit is about 14 % of the total transportation volume by the railroads of Uzbekistan. The figures characterizing the railroad transportation dynamics are shown in Table 2.1.6.

	Domestic Export		port	Im	port	Tra	insit	Total		
	volume, k t	in % to previous year	volume, k t	in % to previous year	volume, k t	volume, k t	in % to previous year	volume, k t	in % to previous year	volume, k t
2004	39.92	98.4	3.84	116.4	5.4	122.7	7.3	95.5	56.46	101
2005	41.07	102.9	3.88	101	4.75	88	8.1	111	57.8	102.4
2006	44.9	109.3	5.04	129.9	5.11	107.6	8.57	105.8	63.62	110.1
2007	51.67	115.1	7.1	140.9	6.37	124.7	9.62	112.3	74.76	117.5
2008	54.24	105	7.99	112.5	5.12	80.4	10.97	114	78.31	104.7
2008 to 2004 in %	135.9		208.1		94.8		150.3		138.7	

Table 2.1.6 – Dynamics of railroad transportation by railroad network of Uzbekistan during 2004-2008.

Main areas where railroad transit via Uzbekistan is currently formed are Kazakhstan, Russia, Tajikistan, and Turkmenistan, where about 70 % of transit cargo traffic is formed.

Major types of transit cargoes include wheat and flour (22.6% in 2008), ferrous (6.4%) and non-ferrous metals and alumina (11.4%), oil products (17%), timber (7.3%) and food products (5.8%).

The structure of transport has changed to a certain extent. Thus, in 2003 the main cargoes transited via Uzbekistan were oil products (33.3%), and the share of wheat and flour was only 10.2%.

Major international corridors in Uzbekistan are as follows:

RL1 (Russia, PRC, Kazakhstan and Kyrgyz Republic) – Shimkent– Chengeldy (Kazakhstan) – Tashkent – Samarkand – Bukhara – Khodjidavlet – Farap (Turkmenistan) – Turkmenabad – (Iran and Azerbaijan) – it is the major transit corridor in the North-South direction. Main transit volumes to the south are coming from Kazakhstan (over 80%) and the central part of Russia (10 %), and the main transit volumes to the north are going to Kazakhstan (70-75%) and Kyrgyzstan (25 %). RL1 corridor supports the links between Uzbekistan and Russia, which is the primary trade partner. In the southern direction, the corridor is used for the export of cotton to Bandar-Abbas ports via Sarakhs, and to Poti via Turkmenbashi. The problem

of transit via Kazakhstani enclave not far from Tashkent was resolved by replacing the route by a longer line passing through Khavast.

**RL2 Tashkent – Nov (Tajikistan) – Kanibadam (Tajikistan) – Andizhan – Osh** (Kyrgyz Republic) – the corridor operates at a capacity, which is considerably below its throughput capacity because of the border formalities and cost of transit via the territory of Tajikistan. The Governmental strategy considered two options to resolve the situation: construction of bypass railway lines or redirection of cargoes to the existing lines in spite of the increasing mileage. The route is important for import/export to/from the Fergana Valley and for UzDaewoo factory near Andizhan, which supports the links with the former parent company in Korea.

RL3 Samarkand – Karshi – Talimardjan (Turkmenistan) – Kelif (Turkmenistan) – Termez – Dushanbe (Tajikistan/Khairaton (Afghanistan) and as a sub-option Samarkand – Tashguzar – Kumkuragen - Termez – Dushanbe (Tajikistan/Khairaton (Afghanistan) – it provides the links with Afghanistan, but the transportation volumes carried along the corridor are minor.

**RL4 Samarkand – Navoi – Nukus – Kara-Kalpak – Oasis (Kazakhstan) - (Russia, Ukraine and Central Europe)** – it is the major route for cargo transport to the southern regions of Russia and Eastern Europe via Astrakhan. The corridor is important for the trade of Uzbekistan, Turkmenistan and Tajikistan with Russia, though the basic route is RL1 corridor. The section of Navoi – Uchkuduk – Sultanuizdag – Nukus was completed in 2004, which removed the necessity to transit the territory of Turkmenistan.

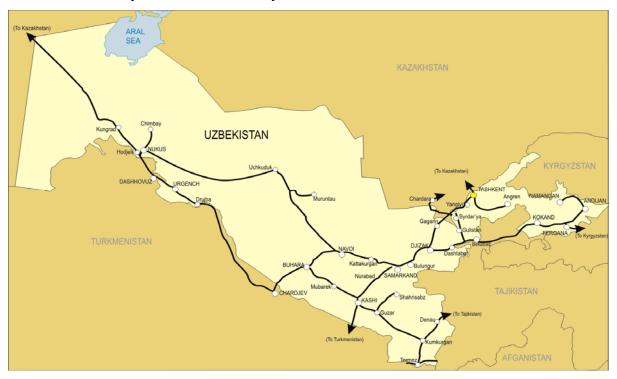


Figure 2.1.5 Railroad Network of Uzbekistan

# 2.2 Challenges and Main Areas of Developing Railroad Transit Transportation Potential

Basic operating data of railroads in CAR countries are presented in Tables 2.2.1 and 2.2.2. Table 2.2.1 – Basic data for railroads of CAR countries<sup>3</sup>, 2007

	y, k km2	of 01.01.2008, eople	Miles of ma	intained tra	ack, km		Tractio	n rollin	g stock		cars	trailing cars	cars	
Countries	Intry	on as of 01. mln people		Electrifie	d lines					and s	ins cars	ıger	and ti	ght c
	Are of country,	Population a mln	Total, km	km	%	steam locomotive	diesel locomotive	electric locomotive	diesel trains a diesel cars	electric trains and electric car	Passenger cars	Motorized a	Freight	
Kazakhstan	2724.9	15.6	14205.4	4143.5	29.2	30	1105	592	10	77	2032		90493	
Kyrgyzstan	199.9	5.2	417.2	0.0	0.0	2	46				394		2339	
Tajikistan	143.1	7.2	616.0	0.0	0.0		57				318		2452	
Turkmenistan	491.2	5	3068.9	0.0	0.0		329				361		14112	
Uzbekistan	447.4	27.6	4004.5	593.9	14.8		245	56		13	758		16696	
Total	4006.5	60.6	22312	4737.4	21.2	32	1782	648	10	90	3863	0	126092	

Table 2.2.2 - Railroad network in CAR countries

	2003	2004	2005	2006	2007	2012 (projected)
		Kazakhstan				•
Operating miles, km	13 770.20	13799.30	14 205.40	14 205.40	14 205.40	14 205.40
Of them double-track lines, %	34.76	34.69	33.69	33.69	33.69	33.69
Of them electrified lines, %	28.07	28.96	29.11	29.16	29.16	29.45
		Kyrgyzstan				
Operating miles, km	417.2	417.2	417.2	417.2	417.2	
Of them double-track lines, %						
Of them electrified lines, %						
		Tajikistan				
Operating miles, km	860.5	954.4	954.4	954.4	954.4	1000.2
Of them double-track lines, %						
Of them electrified lines, %						
	Т	urkmenistan				
Operating miles, km	2523	2523	2523	3068.9	3068.9	
Of them double-track lines, %	1.1	1.1	1.1			
Of them electrified lines, %						
		Uzbekistan				•
Operating miles, km	3992.6	4014.2	4014.2	4004.5	4229.6	
Of them double-track lines, %	10.8	10.7	10.5	9.8	9.3	
Of them electrified lines, %	14.5	14.8	14.8	14.8	13.9	

<sup>&</sup>lt;sup>3</sup> Source: OSJD, Bulletin of railway statistical data of OSJD member countries for 2007, Warsaw, 2008

Total traction rolling stock in the CA countries was comprised of 2562 units back in 2007, of which 70% were diesel-powered locomotives. The largest stock is owned by the Kazakhstani railroads. High degree of deterioration is typical for the locomotive stock condition in all CA countries. E.g., in Kazakhstan it is as high as 72%. In Tajikistan the operating life of 50% of locomotives exceeds 20 years. According to official data as of 01.01.2008, in Uzbekistan average wear and tear of diesel-powered locomotives was 76%, and that of electric locomotives -30.8%.

Maintaining the traction rolling stock in operating condition requires high operating costs and expenses for its maintenance and repairs. This, in its turn, creates a risk of loss of technological stability and determines considerable investment requirements.

High degree of deterioration is the major problem of the freight cars in the CA countries. In Kazakhstan in has reached 72%. The operating life of over 28 708 cars or 60% of the inventory freight stock of the country exceeds 20 years. Whereas the share of cars with the operating life below 10 years is rather low – only 10 987 cars, or 24%. In Uzbekistan average wear and tear of freight cars was 70% as of 01.01.2008.

According to the data presented in Table 2.2.2, high share of single-track lines is typical for the CAR railroad network. This is a serious deficiency primarily because these sections, while supporting the cargo traffic within domestic and export-import communications along with transit transportation, still have limited throughput capacity.

Alongside with the limited throughput capacity, single-line sections affect negatively the traffic rate, particularly with the traffic density growth. Given that in terms of the level of admissible maximum traffic rate (80 km/h for freight cars) railroads in the CAR countries fall behind technically developed countries by 1.5 - 2.0 times, additional rate limitations at single-line sections (with numerous sidetracks) available within main transit routes discriminate the CAR transport corridors in terms of competition with alternative routes (e.g. Transsib). At the section service speed of 45 km/h and below, taking into account regular additional delays of trains because of maintenance operations (relieve en route, locomotive changing, etc.), an average speed within the corridor will not exceed 35 km/h, which is by 30 per cent lower than that established for international corridors of competitive level at 50 km/h (1200 km/day).

That is why, to ensure sufficient throughput capacity and high traffic rates, international standards include availability of double-track lines as one of the major requirements to technical equipment of international transport corridors.

Serious concerns are caused by the condition of main transport infrastructure, which is characterized by progressive deterioration. The system of regular railway maintenance and repair operations in the CAR countries that collapsed in the 90-s has not been recovered so far. This is

proven by the analysis of CA countries' budgets for maintenance of the main railroad network and current programs of railroad development in Kazakhstan and Uzbekistan.

Taking into consideration the current infrastructure condition within the CAR countries and the challenges faced by the sector in attracting transit freight traffic, there should be the following strategic areas for investment activities for the near-term outlook:

- recovery and refurbishment of the existing infrastructure to improve reliability, its operational quality and ensure required throughput capacity;
- construction of new railroads that would optimize conditions for transit traffic handling;
- accelerated implementation of modern information (including satellite) technologies aimed at improving the use of transport infrastructure and developing transit transportation potential of the CA countries.

It is deemed reasonable for the CAR countries to implement organizational measures in order to set up coordinating units (by Transsib's experience), which would initiate and supervise regular operations aimed at technical and technological improvement of transit transportation in the region.

It should be noted that the railroad network of the majority of the CAR countries is currently experiencing the period of rapid growth. In many instances such situation was associated with the countries' striving to avoid excessive time and costs when crossing borders several times. E.g., with that purpose Kazakhstan put into operation the line Altynsarin-Khromtau, Uzbekistan – sections Navoi – Uchkuduk – Sultanuizdag – Nukus and Tashguzar – Kumkurgan. The construction of such lines causes a decline of transit traffic via the territories of the neighboring countries and, therefore, revenues generated by transit. That proves once again that creation of additional barriers at border crossing and transit by the countries in the region encourages the neighboring countries to actively search alternative transport routes and very often make them incur high costs associated with railroad construction.

At the same time the CAR countries have initiated certain projects, which would promote the development of the regional and inter-regional transit – re. Tables 2.2.3-2.2.4.

Country	Transport mode	Project title	Geographic area	Outcome
Kazakhstan	Railroad	Construction of railway line Zhetygen – Khorgas – state border of the Republic of Kazakhstan	Zhetygen – Khorgas	The project will reduce an average distance of cargo transportation to/from the countries of Central Asia and southern regions of the Republic of Kazakhstan to the Aktau port and Russian border.

Table 2.2.3 – List of Investment Projects Initiated by Kazakhstan (June, 2009)

Kazakhstan	Railroad	Construction of railway line Uzen - state border of Turkmenistan	Uzen – Gyzylgaya	The project will allow accomplishing overland transportation via Turkmenistan and Iran to the Persian Gulf and Mediterranean ports, bypassing Bosporus and Dardanelles Straits.
Kazakhstan	Railroad	Construction of railroad Zhezkazgan – Beineu	Zhezkazgan – Saksaulskaya and Shalkar - Beineu	The project will not only promote optimization of regional links within the country, but will also create favorable environment for using the transit potential of Kazakhstan and expanding its external economic relations, as it would provide the shortest access from the CA countries, southern and central regions of the country to the Aktau port.
Kazakhstan	Railroad	Electrification of railroad section Moiynty – Aktogay	Moiynty – Aktogay	The project will allow increasing the throughput capacity of the section. At present it is one of the most heavy traffic sections in the railroad network in the south-eastern part of Kazakhstan, as this is the point where transit flows from the central and northern corridors fuse.
Kazakhstan	Railroad	Electrification of railroad line Aktogay – Dostyk	Aktogay – Dostyk	The railway line links to the Kazakhstani-Chinese border, whereupon this is currently one of the most heavy traffic sections, thus having prospects for the growth of cargo transport volumes.
Kazakhstan	Railroad	Electrification of railroad line Almaty – Aktogay	Almaty – Aktogay	The project will allow increasing the throughput capacity of the section. At present it is one of the most heavy traffic sections in the railroad network in the south-eastern part of Kazakhstan, as this is the point where transit flows from the central and northern corridors fuse.
Kazakhstan	Railroad	Construction of railroad line Mangyshlak – Bautino	Mangyshlak – Bautino	The project will create favorable environment for further expansion of external economic relations and use of the export potential of Kazakhstan.
Kazakhstan	Automobile road	Reconstruction of automobile road Almaty – Khorgos	Almaty – Khorgos	As a result of the project, the technical category of the Almaty-Khorgos road will be upgraded from one-lane to four-lane road and axle weight limit up to 13 t. Project implementation will not only provide for the optimization of regional links within the country, but will also create favorable environment for using the transit potential of Kazakhstan.
Kazakhstan	Automobile road	Construction of automobile road Beineu – Shalkar	Beineu – Shalkar	Project implementation will provide for the creation of a new road- transport exit from the Central Kazakhstan to the west to the Aktau port. Shifting cargo traffic to the new direction will reduce the transportation distance by more than 700 km versus the existing route via Aktyubinsk city.
Kazakhstan	Automobile road	Reconstruction of automobile road	Tashkent – Shimkent- border	Automobile road Tashkent-Shimkent- the border of Zhambyl Oblast is a

Tashkent – Shimkent- border of Zhambyl Oblast	of Zhambyl Oblast	section of one of the six major automobile transit corridors in the country: Tashkent-Shimkent-Taraz- Almaty-Khorgos.
		As a result of the project, the technical category of the road Tashkent- Shimkent - the border of Zhambyl Oblast will be upgraded from one-lane to four-lane road and axle weight limit up to 13 t.

## Table 2.2.4 - List of Investment Projects Initiated by Other CAR Countries (June, 2009)

Country	Transport mode	Project title	Geographic area	Cost estimate
	mode			
Kyrgyzstan	Automobile road	Further assistance to reconstruction of transport corridor Osh-Isfagan (360 km, mainly over level/bumpy terrain, but with some up-and- down areas), the Batken Oblast, south-northern part of Kyrgyzstan as a part of the National Road Rehabilitation Project (NRRP) Phase 1 (km 10-28) and Phase 2 (180 km)	CAR	Total cost of projects 1 and 2 – USD 300 mln
Kyrgyzstan	Automobile road	Further assistance to reconstruction of road corridor Bishkek-Naryn-Torugart (400 km, mainly over mountainous terrain), Chui / Issyk-Kul / Naryn Oblast, north /south-east of Kyrgyzstan	CAR	Total cost of projects 1 and 2 – USD 300 mln
Kyrgyzstan	Automobile road	Osh-Isfana	Osh-Isfana	No data available
Tajikistan	Railroad	Dushanbe – Vakhdat - Djigart - border of Kyrgyzstan	Dushanbe - border of Kyrgyzstan	No data available
Tajikistan	Railroad	Railroad Vakhdat -Yavan	Vakhdat -Yavan	USD 222.52 mln
Tajikistan	Railroad	Kholkhozabad – Dusti – Nizhny Piandj - Kunduz (border of Afghanistan)	Kholkhozabad - Kunduz (border of Afghanistan)	USD 67.51 mln
Tajikistan	Railroad	Railroad North-South (Regar – Nau)	Regar – Nau	No data available
Tajikistan	Automobile road	Rehabilitation and reconstruction of automobile road Guliston – Parkhar - Piandj - Dusti	Guliston – Parkhar - Piandj - Dusti	USD 36.2 mln
Tajikistan	Automobile road	Rehabilitation and reconstruction of automobile road Kholkhozabad – Kabadien – Shaartuz - Aivadj – Mazari Sharif	Kholkhozabad — Aivadj	USD 51.7 mln
Tajikistan	Automobile road	Rehabilitation and reconstruction of automobile road Parkhar - Kokul - border of Afghanistan	Parkhar - Dusti	USD 17.8 mln
Tajikistan	Automobile road	Rehabilitation and reconstruction of automobile	Khorog – Murgab – Kulma	USD 243.5 mln

		road Khorog – Murgab – Kulma pass		
Uzbekistan	Automobile road	Development of the system to control and regulate emissions from vehicles in Central Asian countries	Central Asia	No data available
Uzbekistan	Aviation	Reconstruction and modernization of Navoi airport	Central Asia	No data available
Uzbekistan	Automobile road	Construction of bypass road in Tashkent	Corridor connecting north- western and southern regions of Uzbekistan	No data available
Uzbekistan	Automobile road	Construction of highway Gulistan-Akhangaran to connect to Tashkent highway	Corridor connecting north- western and southern regions of Uzbekistan	No data available
Uzbekistan	Automobile road	National highway of Uzbekistan: 1) Reconstruction and repair of Bainau – Kungard – Bukhara; Bukhara –Navoi - Samarkand- Tashkent – Kazakhstani border (E-40).	The project will locate along E-40 axle.	€ 980 mln
Uzbekistan	Automobile road	National highway of Uzbekistan: 2) Reconstruction of motor way Alat- Bukhara-Karshi- Termez-Sarasiya-Tajik border (E-60)	The project will locate along E-40 axle.	€ 210 mln
Uzbekistan	Automobile road	National highway of Uzbekistan: 3) Construction of automobile road Gulistan –Akhangaran (110 km (bypassing Tashkent)	Gulistan – Akhangaran	No data available
Uzbekistan	Automobile road	National highway of Uzbekistan: 4) Reconstruction of motor way Tashkent-Andizhan- Kyrgyz border, including construction of bypass road around Kokand (E-007)	The project will locate along E-40 axle.	€ 68.3 mln. donors: 62% - governmental budget 38% - IFIs
Uzbekistan	Automobile road	National highway of Uzbekistan: 5) Reconstruction of motor way Samarkand-Guzar (Trans- European highway E-005)	The project will locate along E-40 axle.	€168.3 mln.

## 3 Automobile Transit Transportation Potential

## 3.1 Transportation Volume and Dynamics

#### Kazakhstan

The only official source of information on automobile transit freight traffic is the departmental statistics of the Committee for Customs Control of the Ministry of Finance of the Republic of Kazakhstan. According to its data, the transit volume ranged from 0.1 to 0.3 mln t during the recent years. The data shown in Table 3.1.1 demonstrate rather stable (except for some "peak" deviations in certain years) trends of increasing transit volumes – 124% in average.

Table 3.1.1 – Transit freight traffic by automobile transport via the territory of the Republic of Kazakhstan during 2001-2008.

Country of departure	Country of destination	Vo	lume of tra	nsit cargo	carried via	the territory	y of the Rol	K, t
ueparture	destination	2001	2002	2003	2004	2006	2007	2008
	Azerbaijan	1344.2	1489.4	1734.9	7 435.7	4387.0	3648.0	30705.0
	Armenia	796.4	632.3	538.2	718.1	822.0	800.0	666.0
	Afghanistan	0.0	0.0	42.2	2 302.5	9129.0	14428.0	1344.0
	Georgia	1141.4	1420.3	1721.0	2 315.1	943.0	624.0	1470.0
	Iran	225.4	0.0	213.1	3 223.7	2448.0	2059.0	963.0
	Kyrgyzstan	18504.9	34901.4	13501.8	86 860.5	77912.0	73001.0	51366.0
China	Russia	35800.9	31654.8	20513.0	17 985.7	16244.0	22094.0	28864.0
	Tajikistan	3597.2	13553.0	34966.8	30 401.5	33418.0	54035.0	53262.0
	Turkmenistan	302.4	1004.2	1307.4	10 574.8	497.0	1180.0	7557.0
	Uzbekistan	11101.3	11438.7	1107.4	5 428.7	8075.0	16791.0	37245.0
	Ukraine	12251.5	905.2	75.0	485.7	1268.0	2886.0	2388.0
	Others	262.0	82.5	15.1	1284.9	23023.0	2112.0	5549.0
	Total	85327.6	97081.8	75735.9	169 016.9	178166.0	193658.0	221379.0
	Kyrgyzstan	75.9	0.0	0.0	0.0	10.0	20.0	3.0
Korea	Russia	0.0	0.0	0.0	568.7	30.0		3170.0
Korea	Others					18498.0	1.0	19.0
	Total	75.9	0.0	0.0	568.7	18538.0	21.0	3192.0
	China	0.0	784.3	4297.2	597.4	2680.0	2559.0	5057.0
Kyrgyzstan	Russia	6675.9	6090.2	2421.0	4 395.3	1717.0	1132.0	1054.0
Kyrgyzstan	Others	17.2	18.4	37.9	2 782.2	1126.0	410.0	1087.0
	Total	6693.1	6892.9	6756.1	7774.9	5523.0	4101.0	7198.0
	Russia	6411.8	4218.1	3492.5	3 074.5	35724.0	11097.0	595.0
Uzbekistan	Others	1.3	12.5	17.2	485.6	3128.0	951.0	1891.0
	Total	6413.1	4230.6	3509.7	3 560.1	38852.0	12048.0	2486.0
Russia	China	0.0	516.1	1307.2	159.2	22.0	87.0	73.0
	Kyrgyzstan	1725.1	2592.6	2280.7	1 754.1	5512.0	2710.0	2613.0

	Turkmenistan	9.1	139.1	112.0	10.5	704.0	729.0	882.0
	Uzbekistan	1142.9	706.9	2899.8	1 402.3	3573.0	3458.0	3973.0
	Others	0.1	0.0	20.9	0.0	782.0	1292.0	1536.0
	Total	2980.1	4214.8	6867.7	3420.0	12783.0	10356.0	12054.0
	Turkmenistan	0.0	0.0	511.0	0.0	0.0	0.0	0.0
Tajikistan	Others	0.0	0.0	0.0	155.0	198.0	32.0	69.0
	Total	0.0	0.0	511.0	155.0	198.0	32.0	69.0
	China	0.0	0.0	94.6	93.2			1.0
Turkmenistan	Others	0.0	0.0	0.0	0.0	41.0	7.0	112.0
	Total	0.0	0.0	94.6	93.2	41.0	7.0	113.0
Others	Total	353.0	344.5	276.0	131.6	47908.0	16632.0	13064.0
To	tal	101842.8	112764.6	93751.0	184 720.4	302009.0	236855.0	259554.0

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The bulk of the automobile transit (about 86%) is formed in China. Much lower are the shares of the CA countries (about 3.8%) and Russia (4.6%). The share of other countries in transit transportation is about 6.3%.

Major countries of destination for cargo traffic from China are CA countries, Caucasian republics and Russia. Significant changes in the structure of those correspondences should be mentioned. Back in 2001 the volumes of transit cargo traffic from China to Russia were about 35.2% of the total automobile transit (35.8 thousand tons). In 2008 the share of transportation in these communications declined to 11%, or 28.9 thousand tons. At the same time, the share of transportation from China to CA countries increased considerably - from 32.9% (33.5 thousand tons) to 57.6% (149.4 thousand tons). The volume of transportation to the Caucasian republics, primarily to Azerbaijan, also increases from 3.2% (3.3 thousand tons) to 12.7% (32.8 thousand tons).

According to the customs data base, only about 6 thousand tons of cargo is carried to China, mainly from Kyrgyzstan (84%).

Major countries of destination for transit cargo traffic are CA countries (63%), Russia (13.1%), and Azerbaijan (11.8%).

#### Kyrgyzstan

Both national and foreign carriers are equally represented at the market of international transportation of Kyrgyzstan. As Table 3.1.2 shows, the volume of automobile transit via the territory of Kyrgyzstan is insignificant. However, certain observations allow assuming that actual volumes of transit via Kyrgyzstan to China and the CA countries are higher. But in view of the fact that part of Chinese cargoes pass customs clearance at the territory of Kyrgyzstan, such goods are not attributed to the transit category.

Table 3.1.2 – Number of trips in international automobile communications of Kyrgyzstan during 2006-2008

		2006			2007			2008				
	Import	Transit	Export	Import	Transit	Export	Import	Transit	Export			
	Kyrgyzstan carriers											
Total	20845		20845	26366		26336	23922		23982			
including:												
to EU	682		987	815		1457	891		1535			
to CIS	7688		7383	13882		13210	11382		10798			
to China	12475		12475	11669		11669	11649		11649			
				Foreign c	carriers							
Total	6799		6799	11642	46	11642	21522	12	21532			
including:												
to EU	1418		1418	1493	4	1493	2018	2	2018			
to CIS	389		389	365	42	365	473	10	483			
to China	4992		4992	9784		9784	19031		19031			

#### Tajikistan

The total volume of export-import and transit transportation of Tajikistan carried by automobile transport is 800.5 thousand tons. The bulk of this volume is comprised by import transportation (62.1%). The share of export transportation is only 8.5%. Transit volume is not large -235.4 thousand tons or 29.4% of total international automobile transportation.

#### Uzbekistan

Table 3.1.3 contains data on volumes of international transportation of Uzbekistan during 2003 - 2008. As the Table shows, the share of automobile transit via Uzbekistan is about 0.4 mln. t. The major countries were transit cargoes are formed are Turkey (32.8%), Kazakhstan and Kyrgyzstan (15.4% in each). Major countries of destination for transit cargo traffic are Tajikistan (36.9%), Kyrgyzstan (15%), Kazakhstan (14.7%) and Turkey (14%).

Basic types of transit cargoes are food products and consumer goods (38.8% in total) and "other goods" category (43.7%).

Years	Total	Transport mode	Import	Export	Transit	Total import, export and transit	Share, %
		Railroad	3.3	4.4	7.6	15.3	95.1
2003	16.1	Automobile	0.3	0.2	0.2	0.8	4.7
		Air	0.0	0.0	0.0	0.0	0.1
2004	17.5	Railroad	3.8	5.4	7.3	16.5	94.3
		Automobile	0.3	0.3	0.4	1.0	5.5

Table 3.1.3 - Dynamics of international transportation of Uzbekistan, mln t

		Air	0.0	0.0	0.0	0.0	0.2
		Railroad	3.9	4.7	8.1	16.7	94.1
2005	17.8	Automobile	0.4	0.3	0.4	1.0	5.8
		Air	0.0	0.0	0.0	0.0	0.1
		Railroad	5.0	5.1	8.6	18.7	94.4
2006	19.8	Automobile	0.3	0.4	0.4	1.1	5.5
		Air	0.0	0.0	0.0	0.0	0.1
		Railroad	7.1	6.4	9.6	23.1	95.0
2007	24.3	Automobile	0.3	0.4	0.5	1.2	5.0
		Air	0.0	0.0	0.0	0.0	0.1
		Railroad	8.0	5.1	11.0	24.1	95.8
2008	25.1	Automobile	0.3	0.3	0.4	1.0	4.1
		Air	0.0	0.0	0.0	0.0	0.1

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# 3.2 Challenges and Main Areas of Developing Automobile Transit Transportation Potential

At present, the major barrier for further development of automobile transport and improvement of its efficiency (including in the field of transit) is the "road factor" – nonconformance of operational condition of roads with transportation requirement. Therefore, a mandatory condition to improve transportation, both domestically and internationally, is a stage-by-stage rehabilitation and refurbishment of motor roads, their maintenance against heavy wear and gradually bringing them in compliance with the international standards.

Table 3.2.1 contains data on the length of automobile roads in CA countries by their types.

	2003	2004	2005	2006	2007
	Ka	azakhstan			
Express roads					
National	23061	23055	23508	23559	23508
Oblast	65931	66963	30787	31880	30194
Rural	03931	00903	36549	36085	39438
Others					
Total	88992	90018	90845	91563	93140
	Ky	yrgyzstan			
Express roads					
National				9743.1	9726.6
Oblast				- 8898.7	8891.4
Rural				0090.7	0091.4
Others					
Total				18641.8	18618
	Т	ajikistan			
Express roads					
National	4873	4878	4878	4905.08	5272.3

Table 3.2.1 – Length of automobile roads in CA countries, km

Oblast	8907	8925	8925	8927.92	8608.7
Rural					
Others					
Total	13780	13803	13803	13833	13881
	U	zbekistan			
Express roads	3239	3242	3626	3626	3626
National	18817	17781	16909	16902	16904
Oblast	21487	22313	21995	22011	22028
Rural	66882	66882	66882	66882	66882
Others	71870	71870	71870	71870	71875
Total	182295	182088	181282	181291	181315

At present, the main problem for the motor roads of national significance in all CAR countries is their poor operational condition, which affects negatively transit attractiveness of the country. Thus, according to the Ministry of Transport and Communications of the RoK, the length of motor roads of national significance in good condition was only 7.2 thousand km according to 2008 data, i.e. 30.5 %. In Kyrgyzstan that figure for international transportation corridors was 23%, in Tajikistan – only 20%.

Poor quality of road pavement is one of the reasons for high rate of road traffic accidents, high consumption of fuel and lubricants, excessive costs for repair and maintenance of rolling stock, low service speeds of cargo delivery. These affect negatively the transport component in the value of goods and services, thus reducing the competitiveness of transit routes of Kazakhstan.

The basic reason of poor operational condition of roads is insufficient funding of their maintenance and repair costs. E.g., according to the Ministry of Transport and Communications of the RoK, standard requirement for maintenance and current repairs of the national roads was KZT 19 billion in 2008 prices, whereas the national budget allocated only 39 % of the required amount. Standard requirement for maintenance and current repairs of roads within local networks was KZT 29 billion. However, the national budget allocated only 26 % of the required amount.

Similar picture can be viewed in all CAR countries without exception. Meanwhile it is a well-known fact that when the road condition is poor, each dollar saved on road maintenance make up 3 additional dollars for road users (as additional transport and operational costs) and 2 dollars for road operators as additional costs for road rehabilitation in the future.

In line with rehabilitation and refurbishment of the road system, construction of required **service plazas** is not less important in the field of infrastructure improvement of automobile transit potential.

When maintaining such facilities as service stations, gasoline stations, motels and campings at high technical level, thus providing services, which meet the requirements of

international automobile carriers, the attractiveness of transit corridors of the country enhances considerably and, therefore, transit volumes increase.

Studies of service levels at main highways in CAR show that small service stations prevail even at international highways, which do not have required workspace, modern equipment and do not provide all types of repairs. As a rule, all of them are specialized in providing services to passenger cars. Thus, in some road sections distances between service stations exceed the standard requirement by two and more times.

The situation is even worse in the field of recreation and rest conditions for carriers. In some regional corridors an actual number of motels and campings is almost by twice below the standard requirement. The existing motels and campings do not have sufficient number of parking places for commercial vehicles, thus in most cases not meeting standard requirements in terms of services provided.

All these affect negatively the traffic safety and do not allow drivers to follow the requirements of the European Agreement related to the operation of crews of vehicles carrying out international motor transportation. Basic reasons for low activity in the field of construction of motels and campings are high capital investments and low profitability of such facilities' operations.

Infrastructure improvement in the sector must envisage the following:

- establish a communication network along the transportation corridors, which would allow drivers to be in contact with freight owners and other transportation stakeholders, logistical centers, service facilities and other parties from any section of the transportation corridor;
- make it possible to apply information technologies, and in the future to create common information space for the transportation complex.

The CAR countries recognize the necessity to improve operational conditions of roads, which is proven by the data contained in Table 2.2.4.

Another initiative should be highlighted in the field of automobile transit development, and namely Kazakhstani project for the development of the International Transit Corridor "Western Europe – Western China". It is supposed that the corridor will support cargo traffic in three major directions: China-Kazakhstan, China-Central Asia, and China-Russia-Western Europe.

The total length of the corridor is 8445 km, of them 2787 km over the territory of Kazakhstan; 2452 km will be reconstructed, of which 1390 km are attributed to technical category I with four-lane traffic (and 1062 km are attributed to category II). In addition, many infrastructure facilities will be constructed along the corridor (cafes, gasoline stations, service stations, motels, etc.).

The total cost of the project is KZT 825.1 billion. To implement the project, in addition to governmental budget, it is intended to attract loans from international financial institutions, as well as private investments by implementing the public-private partnership mechanism.

Key positive indicators of this project, as compared to the existing alternative corridors (Transsib automobile corridor and the sea corridor via the Suez Canal), are its length and time en route. Only time indicators demonstrate economic attractiveness of this route. According to the data of the preliminary study carried out by the World Bank experts, economic benefits from the reduction of time en route will be KZT 16 bln as early as during the first year of operation (2013).

Given high requirements set in EU countries to economic parameters of vehicles, the main field of improving the rolling stock for transit transportation into these countries is still shifting to higher "Euro" technical standards.

## **4 Water Transport**

#### 4.1 General Characteristics, Volume and Dynamics of Sea Transportation

Development of sea routes for cargo carriage via the Caspian Sea is of prime importance for the CAR countries given their inland location, as it provides the shortest access to the global market. Taking into consideration the importance and urgency of this task, during the recent years Kazakhstan and Turkmenistan have been taking active measures to develop port infrastructure and merchant shipping.

Prior to the beginning of 90-s of the 20<sup>th</sup> century the Caspian Sea was used mainly for coastal traffic within the basin. During that period of time the total transportation volume was about 20 mln. t per year, including 12 mln. t of oil cargo and 8 mln. t of dry cargo. The share of external trade shipping did not exceed 5-7%.

Maritime export-import and transit transportation started developing after the collapse of the USSR and following the countries of the region gained independence. In 2005 the volume of cargo transportation via the Caspian basin ports was about 28 mln t .

Tables 4.1 and 4.2 show the figures on cargo turnover of the Aktau International Merchant Seaport (the Aktau Seaport) and the Turkmenbashi port.

		years							
	1996	1997	1998	1999	2000	2001	2002	2003	
Oil	101	868	1815	2067	3386	5035	5553	6971	
Metals	222	226	140	235	702	1060	574	836	
Grain	16	11	28	8	15	84	209	5	
Other cargoes	36	46	27	38	43	181	615	268	
Total	376	1150	2011	2348	4144	6360	6951	8080	

Table 4.1 – Growth of cargo turnover in the Aktau Seaport during (k t)

Table continued

			years					
	2004	2005	2006	2007	2008			
Oil	8289	8913	9960	9293	8902			
Metals	1011	1024	1029	1161	1511			
Grain	13	33	118	188	266			
Other cargoes	378	399	398	329	332			
Total	9691	10369	11505	10971	11 011			
Source: the Aktau Seaport								

In 2009 projected transshipment of cargo via the Aktau Seaport will be about 13.8 mln t. It is expected that more than 14 mln. t will be transshipped via the port in 2010.

Almost all cargoes transshipped in the Aktau Seaport are export ones. This is determined by objective reasons, as the bulk of import is delivered from the countries, which have land boundaries with Kazakhstan (Russia and China).

Within the implementation of the Transport Strategy of Kazakhstan, the Aktau Seaport takes measures to establish stable transportation of transit cargoes by setting through transit fares and optimizing cost of services on the route China – Aktau – Iran. Thus, during 2008 the Aktau port jointly with JSC "NC Kazakhstan Temir Zholy" worked on attracting transit rolled metal products from China. However, the volume of transit via the Aktau port still remains low –it was only 11 thousand t in 2008 (metals).

	2006			2007			2008		
	Import	Export	Total	Import	Export	Total	Import	Export	Total
Crude oil	0.0	1300.7	1300.7	0.0	1866.5	1866.5	0.0	1868.8	1868.8
Polypropylene	0.0	55.7	55.7	0.0	45.1	45.1	0.0	35.9	35.9
Coke	0.0	96.9	96.9	0.0	59.2	59.2	0.0	5.2	5.2
Other oil products	91.6	3281.6	3373.2	105.6	3646.3	3751.9	135.4	3428.9	3564.3
Chemicals	934.7	0.4	935.1	762.1	267.0	1029.1	579.5	172.6	752.1
Construction materials	157.1	58.4	215.5	149.6	78.1	227.7	235.6	57.8	293.4
Metals and metal products	46.5	42.3	88.8	73.0	50.5	123.5	109.8	32.2	142
Timber and lumber	2.6	0.1	2.7	4.7	0.0	4.7	9.6	0.1	9.7
Machinery and equipment	46.4	20.1	66.5	43.1	19.6	62.7	55.5	19.6	75.1
Food products	169.4	15.6	185	114.9	24.0	138.9	121.2	23.6	144.8
Agricultural products	0.4	7.4	7.8	0.1	8.4	8.5	0.4	1.1	1.5
Other cargoes	202.2	203.1	405.3	170.4	175.9	346.3	134.6	194.2	328.8
Total	1651.0	5082.4	6733.4	1423.4	6240.6	7664.0	1381.5	5840.0	7221.5

Table 4.2 – Dynamics of cargo turnover via the Turkmenbashi port during (k t)

Sea shipping of Kazakhstan and Turkmenistan is formed to the following destinations:

- Iran: export into Iran and transit to the countries of the Persian Gulf;
- Russia: shipping via the ports of the Caspian (Makhachkala, Astrakhan, and Olia) and Azov basins;
- Black Sea and Mediterranean Sea: shipping to the countries adjacent to these basins, within direct and combined railroad-sea communications; and
- Northern direction: direct water transportation along the Volga-Baltic Route to the countries of the Baltic basin.

#### 4.2 Transport Infrastructure Facilities at the Caspian Sea

#### Aktau International Merchant Seaport (the Aktau Seaport)

The major Kazakhstani transport infrastructure facility at the Caspian Sea is the Aktau International Merchant Seaport (the Aktau Seaport)

Aktau International Merchant Seaport (the Aktau Seaport) is situated on the eastern coast. This is the only seaport in Kazakhstan, which is a unique and strategically important transport hub for the country, shipping export-import and transit cargoes. Three types of transport link up here: sea, railroad and automobile ones. This creates outstanding favorable conditions for the development of multimodal shipping via the port both in containers and other shipping units (using automobile and railroad ferries).

To support increasing requirements of transporting oil cargoes and export oriented raw materials to the markets and ensure strategic presence of Kazakhstan in the Caspian Sea, in 2006 a project was launched to expand the port to the north, the total project cost being KZT 41.7 bln., or USD 347 mln. Within the framework of the project, it is intended to construct oil loading and dry cargo terminals, as well as waterworks. Projected measures to develop port infrastructure should increase annual volumes of transshipping oil cargo up to 20 mln t, and that of dry cargoes – up to 3 mln. t.

#### Bautino Port

The Bautino Port is situated in the Tupkaragan Gulf in the Bautino Bay. The main cargo processed by the port until the recent time was shell limestone produced in the local quarry and other cargoes (coal, timber, etc.). At present the Bautino Port does not transship cargoes to international destinations, processing only cargoes for oil producing companies (equipment, construction materials, fuel and lubricants, etc.).

In December 2007 a pilot navigation and control system was put into operation in the Bautino Port, which will allow reducing the risk of accidents at water transport.

#### Kuryk Port

In order to implement the State Program of Developing the Kazakhstani Sector of the Caspian Sea, as well as to avoid barriers for Kazakhstan's export opportunities by sea transportation, it is intended to develop the Kuryk Port (located in the Bekovich-Cherkassky Bay, 11 km from Eralievo railroad station).

JSC "National Company KazMunaiGaz" is considering construction of a specialized oil loading terminal in the area of the Kuryk Port, with the capacity up to 20 mln. t per year, which will be oriented at participating in Baku-Tbilisi-Ceyhan project.

At the same time several production facilities are intended here required to support offshore operations at the Caspian oil shelf.

#### Turkmenbashi Port

There are 6 oil loading terminals, 4 dry cargo terminals and a mooring for railroad ferry, which services voyages to Baku. This port is the only competitor of Aktau in cargo transportation within the TRACECA corridor. At present the feedstock is transshipped through this port for the aluminium plant in Tajikistan, as well as some oil products from Central Asian countries. Constantly declining volumes of cotton are also transshipped through that port.

Reconstruction of the dry cargo terminals, ferry moorings and oil loading terminals were funded through EBRD loans.

# 5 Legal and Regulatory Framework of Transit Transportation and Recommendations for Its Improvement

#### Multilateral Convention Framework

International operation and development of all transport modes is currently based on the multilateral convention framework. In effect, the world countries are parties to more than 120 international agreements and conventions regulating different aspects of transportation business. Almost half of them – 55 agreements and conventions – have been concluded under the auspices of the UN Economic Commission for Europe (UNECE).

In order to ensure legal framework of land carriage, UNESCAP passed special Resolution 48/11 back in 1992 on automobile and railroad transport. The countries of the Asian continent were recommended to join seven basic conventions and agreements:

- Convention on Road Signs and Signals, 1968;
- Convention on Road Traffic, 1968;
- International Convention on the Harmonization of Frontier Controls of Goods, 1982;
- Convention on Treaty of International Cargo Shipments, 1956;
- Customs Convention on the International Transport of Goods, 1975;
- Customs Convention on Containers, 1972;
- Customs Convention on the Temporary Importation of Commercial Road Vehicles, 1956.

The status of the CAR countries joining these and other international agreements is shown in Table 5.1

The fact of joining certain document means a state's readiness to guarantee observation of the rules, standards, requirements and commitments stipulated by such agreements for transportation parties. This enhances trust to the government, its international authority, thus being one of the main preconditions of international transportation development.

Table 5.1 – Status of CA countries joining international agreements and UN ECE conventions

No.	International agreements and UN ECE conventions	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
1	Vienna Convention of Road Traffic (1968)*	X	X	X	X	x
2	Convention on Road Signs and Signals (08/11/1968)	X	X	X	X	x
3	Convention on Treaty of International Cargo Shipments (1956)*	X	X	X	X	x
4	Customs Convention on the Temporary Importation of Commercial Road Vehicles (1956)*		x			x
5	Customs Convention on the International Transport of Goods (1975)*	X	X	X	X	x
6	International Convention on the Harmonization of Frontier Controls of Goods (1982)*	X	X			x
7	Customs Convention on Containers (1972)*	X				x
8	European Agreement supplementing the Convention on Road Traffic (1971)					
9	European Agreement supplementing the Convention on Signs and Signals (1971)					
10	European Agreement concerning the Work of Crews of Vehicles engaged in International Road Traffic (AETR, 1970)	X			X	x
11	Customs Convention on the Temporary Importation of Private Road Vehicles (1954)					
12	European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR, 1957)	X				
13	Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be used for such Carriage (ATP, 1970)	X				x
14	European Agreement on Main International Traffic Arteries (AGR, 1975)	X				
15	European Agreement on Main International Railway Lines (AGC, 1985)					
16	European Agreement on Important International Combined Transport Lines and Related Installations (AGTC, 1991)	X				
	Notes: * Conventions recommended by UNESCAP Resolution 48/11 x Finally signed, ratified, joined					

Significant role in the regulation of cargo transit transportation is played by the Customs Convention on the International Transport of Goods adopted in 1975 (TIR CARNET). The provisions of this Convention are aimed at facilitation of international cargo transportation by vehicles, improvement of transportation conditions, streamlining and harmonization of administrative formalities, including customs ones. An important provision of the Convention is that when using TIR carnets, no national customs document is required. A legal justification for free movement of goods is a customs document called TIR carnet.

Use of TIR carnet allows carriers of these countries to accomplish international transportation with certain advantages related to customs procedures. In particular, TIR carnet

system envisages a possibility to accomplish international cargo transportation in vehicles and containers sealed with customs seals and stamps of the customs authority of the country of departure to the customs authority of the country of destination without any customs inspection at intermediate border crossings, thus limiting the inspection by a check of documents, seals and stamps, visual examination of vehicles and containers. Customs inspection can be accomplished by customs authorities in exceptional cases, when there are reasonable grounds to suspect that sealed compartments of containers or vehicles contain items not included into the cargo manifest of TIR carnet.

Payment of customs fees and taxes is internationally guaranteed by national associations within the international guarantee network:

- Kazakhstan the Union of International Automobile Carriers of the Republic of Kazakhstan (KazATO);
- Kyrgyzstan the Association of International Automobile Carriers of the Republic of Kyrgyzstan (KyrgyzASMAP);
- Tajikistan the Association of International Automobile Carriers of the Republic of Tajikistan (ABBAT);
- Turkmenistan the Association of International Automobile Carriers of Turkmenistan (THADA);
- Uzbekistan the Association of International Automobile Carriers of Uzbekistan (AIRCUZ).

Figure 5.1 shown the data on the amount of TIR carnets issued by IRU to national associations during the period of 2001 - 2008.

As the figure shows, Kazakhstan and Kyrgyzstan are the most active players within the TIR carnet system among CA countries.

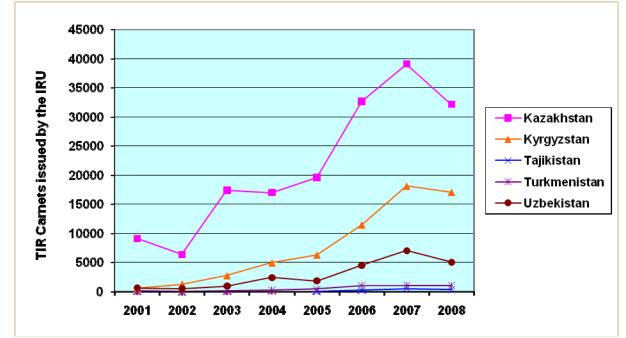


Figure 5.1 Number of TIR carnets issued by IRU to national associations

An important role in the regulation of transit transportation is played by the international customs standards, their application allowing to considerably reduce border customs clearance time. In addition to the above, there are the following international customs conventions related to transit transportation, which are of importance:

- The International Convention on the Simplification and Harmonization of Customs Procedures, known as the Kyoto Convention;
- The Customs Convention on the A.T.A. carnet for the temporary admission of goods (the ATA Convention); and
- The Convention on temporary admission (the Istanbul Convention)

Kazakhstan has become the 60<sup>th</sup> party to the Kyoto Convention, which envisages implementation of international standards in the field of simplification of customs control procedures. The Law of the RoK as of February 24, 2009, # 141-IV ratified the revised version of the Kyoto Convention, however, with the following reservations:

"The Republic of Kazakhstan does not accept Chapter 3 "Coastal Transportation of Goods" of Special Annex E, Chapter 3 "Return" of Special Annex F, Chapter 1 "Customs Violations of Special Annex H, Chapter 2 "Postal mailing" of Special Annex J".

Other CA countries have not joined the above Conventions; however they included certain provisions of the Kyoto Conventions into their national laws.

#### Multilateral foundation of regional associations

The CA countries are parties to certain regional associations and programs (Table 5.2), within which regional measures are taken for trade and transport facilitation and removal of physical and non-physical barriers.

Table 5.2 – Membership of CA countries in international, regional and intergovernmental associations, participation in international cooperation programs for transport issues

	International organizations, regional associations				Intergovernmental associations	Regional cooperation programs		
	CIS	Common Economic Space	EurAsEC	SCO	ECIT/ITF	CAREC ADB	TPACECA	BOMCA
Kazakhstan	+	+	+	+	-	+	+	+
Kyrgyzstan	+	-	+	+	-	+	+	+
Tajikistan	+	-	+	+	-	+	+	+
Turkmenistan	$+^{4}$	-	-	-	-	-	-	+
Uzbekistan	-	-	+	+	-	+	+	+

CIS

Within the CIS, legal framework was established for transport operation in the post-Soviet space; bodies were created for industry (the Coordination Transport Meeting of the CIS Counties - the Council for Automobile Transportation and the Council for State Administrations of Sea and River Transport are functioning within it); the Council for Railroad Transport; Intergovernmental Council of Road Carriers; the Council for Aviation and Use of Air Space and Intergovernmental Aviation Committee); organizational, technical and technological and information unity has been retained and is being developed in the railroad transportation field, and an agreed Tariff Policy is being conducted. Annex C shows the status of CAR countries joining major CIS transport agreements.

#### *EurAsEC*

In its formation, the EurAsEc is underpinned by the basic economic integration model, developed and implemented within the EC. One of the most important integration elements is creation of the Uniform Transportation Space and Transport Union on the territory of member countries.

To attain these objectives, the Concept of Forming the Uniform Transport Space of the Eurasian Economic Community was developed (approved by the Resolution of EurAsEC Intergovernmental Council as of January 25, 2008, # №374). Measures to form the Uniform Transport Space within EurAsEC for 2009-2010 were approved by the Resolution of the EurAsEC Integration Committee # 994 on February 26, 2009.

<sup>&</sup>lt;sup>4</sup> Thus Turkmenistan maintains its neutrality status (Resolution of the Council of Heads of States on Basic Principles of Neutral Turkmenistan Participation in the CIS).

To resolve the issues of international automobile transportation, a special Agreement was concluded among the countries – parties to the Agreement on Transport Union on International Automobile Communications. That Agreement has not come into effect so far as the Republic of Belarus has not completed necessary internal procedures.

In order to take coordinated actions to establish and develop a network of transport corridors that would pass through the territories of the EurAsEC member countries, an Intergovernmental Agreement was concluded on conducting a coordinated policy to create and develop transport corridors within the EurAsEC, and EurAsEC routes were approved (the Resolution of the EurAsEC Intergovernmental Council # 243 dated 27.09.2005).

The following EurAsEC documents deserve attention aimed at regulating relations in the field of railroad transport, including the following:

- General principles of establishment and application of railroad tariffs for cargo transportation between railroad stations of the EurAsEC member countries (approved by the Resolution of EurAsEC Intergovernmental Council as of 19.05.2006).
- The Procedure of Setting Reduction Factors and Through Tariff Schedules for cargo transportation between railroad stations of the EurAsEC member countries (approved by the Resolution of EurAsEC Intergovernmental Council as of 19.05.2006).
- Application of uniform transport document AIGTR consignment (Agreement on International Goods Transport by Rail) as a customs document for cargo transit transportation (the Resolution of EurAsEC Intergovernmental Council # 333 as of April 18, 2007).

#### The Shanghai Cooperation Organization (SCO)

One of the current objectives of the Organization in the economic field is implementation of the Program of Multilateral Trade and Economic Cooperation of SCO member countries, as well as pilot projects defined in the Action Plan for its implementation.

Thus, two pilot project are under implementation, determined by the Special Working Group for Transit Potential Development and approved at the meeting of the Council of Heads of Governments (Prime Ministers) of SCO Member Countries on September 15, 2006, in Dushanbe:

1. Simultaneous construction of motor road Volgograd-Astrakhan-Atyrau-Beineu-Kungard and Aktau-Beineu-Kungard within the international transport corridor (ITC) E-40 with the construction of a bridge over the Kigach river. The Republic of Uzbekistan is the coordinator of the project.

The ceremony of opening the bridge over the Kigach river was held on October 3, 2007.

2. Development of a transport route Osh-Sarygash-Irkeshtam-Kashgar and Bratstvo-Dushanbe-Djirgatal-Karamyk-Irkeshtam-Kashgar, with construction of a transshipment terminal in Kashgar to facilitate multimodal transportation. People's Republic of China is this project's coordinator.

On October 30, 2008, the heads of governments of the SCO member countries endorsed a revised version of the Action Plan to implement the Program of Multilateral Trade and Economic Cooperation of SCO member countries.

Within the SCO framework, work is carried out to draft an Agreement on Creating Favorable Environment for International Automobile Transportation. A regular meeting of experts to prepare the draft Agreement was held in Moscow on June 4, 2009.

Among the international agreements of the SCO member countries, of considerable importance for the development of Eurasian networks is the Agreement Between the Shanghai Organization Member Countries on Cooperation and Mutual Assistance in Customs Affairs

# Multilateral intergovernmental agreements in the field of railroad transport

Unlike automobile transport, the legal framework for international railroad transportation among the CAR countries is comprised by the multilateral intergovernmental agreements developed within the OSJD framework (Table 5.3) and the CIS Council for Railroad Transport. As a rule, the applicable agreements between railroad authorities of neighboring countries regulate organizational and technological aspects of railroad operation.

		Agreements									
Countries	AIPC	AIGTR	AIRPT	AIRT	AUTT	RUWIT	Agreement on Rules of Calculation	Agreement on Combined transportation			
Kazakhstan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Kyrgyzstan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Tajikistan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No			
Turkmenistan	Yes	Yes	Yes	No	No	No	No	No			
Uzbekistan	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Note:       AIPC – Agreement on International Passenger Communications;         AIGTR - Agreement on International Goods Transport by Rail;         AIRPT – Agreement on International Railway Passenger Tariff;         AIRTT - Agreement on international railroad transit tariff;         AUTT - Agreement on uniform transit tariff; and         RUWIT - Rules of Use of Wagons in International Traffic.											

Table 5.3 – Status of CAR countries joining OSJD agreements <sup>3</sup>
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<sup>&</sup>lt;sup>5</sup> Source: OSJD

The CIS Council for Railroad Transport has adopted over 140 agreements, rules, instructions and other documents regulating joint operation of rolling stock, maintenance of technical facilities, international transportation of passengers and cargoes. Railroad authorities under the auspices of the Council for Railroad Transport develop annually train schedules and train formation schedules for the international communications.

One of the major tasks of the Council is to harmonize the tariff policy of railroad authorities. The railroad tariff policy in the CA and other CIS countries for international cargo transportation is formulated within the Tariff Agreement of Railroad Authorities of CIS member countries as of February 17, 1993 (hereinafter referred to as the Tariff Agreement).

Its basic principle is establishment of threshold level for transportation tariffs and additional fees at annual Tariff Conferences (the document "Tariff Policy of Railroads of CIS Member Countries for International Cargo Transportation for Appropriate Year" has been approved). Tariff Policy rates are set on the basis of ITT and UTT. The provisions and rates of the Tariff Policy are applied for cargo transportation by the railroads – parties to the Tariff Agreement for international communications, including for different transport modes, irrespectively of carriage documents. In addition, the Tariff Policy contains a procedure to harmonize through tariffs for cargo transportation.

Main drawback of the Tariff Policy is that the national systems of tariff formation and policies followed by the countries (in order to attract cargoes to their networks and to provide favorable conditions for the delivery of national goods, etc.) differ considerably, which hinder a possibility to set uniform tariff rates at the entire CAR space.

Besides, each railroad authority, in order to ensure competitiveness of railroad transportation, retains the right to increase maximum twice a year the declared rates under condition of advanced notification of all other parties. Railroad authorities enjoy the right to reduce tariff rates independently, without prior notification.

As practice shows, railroad authorities use rather extensively the existing opportunity to increase tariff rates when such actions can not cause immediate outflow of other countries' cargoes, thus often using natural monopoly situation.

## Bilateral framework

At present, the bilateral framework of international automobile transportation of cargoes among the CA countries comprises bilateral intergovernmental agreements on international automobile communications (Table 5.4). These agreements regulate the procedure and conditions of international transportation, contain provisions on preferential regimes created for

carriers on a mutual basis, and conditions for transboundary access to the market, including conditions for transit transportation.

As a rule, these agreements set a prohibition for coastal transportation, as well as requirements for availability of special permission for transportation of large-size, heavy and hazardous cargo.

Based on unilateral agreements, national competent bodies exchange certain number of permissions (for transportation in bilateral, transit communications or for transportation from/to third countries) to transfer them subsequently to carriers of their own countries.

Among the CA countries, an agreement on international automobile communications has not been concluded only between Tajikistan and Uzbekistan.

Table 5.4 – Bilateral intergovernmental agreements on international automobile communications among CA countries

	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
Kazakhstan	-	X*	X*	X***	X**
Kyrgyzstan	X*	-	X**	X***	X**
Tajikistan	X*	X**	-	X***	no
Turkmenistan	X***	X***	X***	-	X***
Uzbekistan	X**	X**	no	X***	-
<ul> <li>* non-permission procedure of cargo transportation from/to third countries</li> <li>** non-permission procedure of cargo trans</li> <li>*** permissions are required for all types o</li> </ul>	sportation in bi	lateral transit	communicatio		ns and for

There are several unilateral agreements, which also regulate the procedure and conditions of international automobile transportation:

1. Agreement between the states – parties to the Agreement on Formation of Customs Union on International Automobile Communications (Moscow, 24.11.1998). The parties comprise Russia, Belarus, Kazakhstan, and Kyrgyzstan. The Agreement stipulates that cargo transportation by vehicles between the territories of the parties or within the Transport Union is accomplished on a non-permission basis.

2. Agreement between the Governments of the Republic of Kazakhstan, People's Republic of China, Kyrgyz Republic and Islamic Republic of Pakistan on Transit Transportation (Islamabad, 9.03.1995). The Agreement envisages a permission procedure for transportation and provision of the "national treatment", i.e. that transit goods will be carried at the conditions similar to those established for the national cargoes. The Parties also agreed to develop mutually

agreed, unified customs procedures and formalities and adopt a unified set of document for transportation. The Agreement specified the following routes and checkpoints for transit traffic:

- 1) Border checkpoints:
- Pakistan: Sast and Karachi port;
- China: Khundjerabad, Torugart, Khorgos;
- Kyrgyzstan: Torugart, Ak Zhol, and Lugovaya;
- 2) Inland routes:
- a. Pakistan-China-Kyrgyzstan Kazakhstan
- b. China Kazakhstan
- c. China Kyrgyzstan.

The parties to the Agreement acknowledged the necessity to maintain the above mentioned routes in a good condition.

Actual enforcement of the agreements started only in 2004, when the transit communications opened between XUAR in People's Republic of China and Pakistan (up to Karachi port). The first transportations over the territory of the four countries were accomplished only in 2008. The parties agreed that the size of the vehicles used for transportation should not exceed 20 x  $2.5 \times 4$  m, and the weight should not exceed 8 tons.

3. The Agreement between the Government of the Republic of Uzbekistan, the Government of the People's Republic of China and the Government of the Kyrgyz Republic on international automobile communications (19.02.1998). The Agreement envisages a permit procedure for transportation. The parties agreed to develop mutually agreed unified customs procedures and use unified cargo manifests. The parties also agreed, as a primary step, to open transport communication along the route Tashkent-Andizhan-Osh-Irkeshtam-Kashgar, and for this purpose to accomplish construction and road service works at their territories.

To regulate international automobile transportation in the region, other additional types of agreements are applicable. An example is the Agreement between the Government of the Kyrgyz Republic and the Government of the Republic of Kazakhstan on transit automobile transportation via the territory of the Republic of Kazakhstan, which was signed in Bishkek on March 26, 2004 (effective as of 11.05.2005). This Agreement is based on the mechanism of financial guarantee to support transit transportation, i.e. for automobile carriage by vehicles via the territory of the Republic of Kazakhstan is accomplished without measures used for ensuring the delivery of goods and vehicles based on consignment documents, any document confirming the payment of customs fees and taxes in the Kyrgyz Republic and a bonded transportation declaration.

When the Agreement was under development, it was agreed that the internal mechanism of damage compensation, procedure of guarantee issuance by financial organizations, measures of administrative pressure imposed on dishonest participants of foreign economic activities, accounting and control mechanism for the guarantees used and other domestic regulation details applied in Kyrgyzstan are of no fundamental importance for the customs authorities of the transit country – Kazakhstan, when the fundamental principle is followed – actual compensation of damage caused by unauthorized delivery of goods into the national economy of the country of transit.

Basic deficiencies of the above Agreement are as follows:

- The Agreement is rather vague, which is revealed in its one-sided character (i.e. application of the document confirming the payment of customs fees and taxes issued only to the customs authorities of Kazakhstan);
- The developed national Procedure of guarantee issuance and application by the customs authorities of the Kyrgyz Republic is a rather cumbersome mechanism.

In spite of the fact the Agreement is rather vague, the testing of such scheme became possible for preparing bilateral agreement with the Republic of Tajikistan drafted by analogy with the above Agreement (the Agreement between the Government of the Kyrgyz Republic and the Government of the Republic of Tajikistan on transit flow of goods by automobile transport was signed on July 22, 2005, and submitted for ratification).

It should be noted that the countries – members of the Eurasian Economic Commonwealth (Belarus, Russia, Kazakhstan, Kyrgyzstan, and Tajikistan) conduct work within their customs authorities to draft an Agreement on ensuring payment of customs fees by depositing due customs fees to the customs authority's account or by using bank guarantees for the flow of goods under the customs control among the customs authorities of the EurAsEC. The mechanism of the Agreement is also based on issuing specific financial guarantees by the customs authorities, which could cover potential losses of the country of transit in case of unauthorized bonding of transit goods.

# 6 Physical and Non-Physical Barriers at Border Crossing and Measures Taken at National and Regional Levels to Remove Them

Major problems hindering the development of comprehensive integration of automobile and railroad transport of CAR countries comprise the following:

Physical barriers, such as:

- considerable physical deterioration and obsolescence of transport infrastructure and rolling stock, lack of carriage/container and locomotive rolling stock;
- perceptible retardation of the existing infrastructure and technologies versus the international quality standards (route throughput rate, etc.);
- insufficient throughput capacity of border crossing points;
- lack of developed logistic and communication networks, service plazas;
- difference in rail gages CIS countries use only 1520-mm rails, whereas in China and Iran the width of gage is 1435 mm. That is why cargo carriage through the Kazakhstani-Chinese border and the border of Turkmenistan and Iran (border crossing Dostyk (Kazakhstan) Alashankou (China) and Sarakhs (Turkmenistan)) is associated with additional operations to change the rail gage; and
- insufficient development of cargo processing, consolidating and deconsolidating capacity.

Non-physical barriers, such as:

- lengthy downtime of vehicles at border crossing points. An interesting and representative analysis was recently completed by the Forum of Entrepreneurs of Kazakhstan within the Program of Trade and Transport Facilitation Performance Monitoring (TTFPM) – re. to the Report of the World Bank "Measuring Efficiency of Trade and Transport Corridors in Central Asia and Southern Asia", 2009. An accelerated pass of vehicles within the Carnet TIR system is not used to the full extent;
- stopovers of vehicles with frequent instances of involuntary opening and inspection of sealed transit vehicles and cargoes;
- insufficiently harmonized transit tariffs in CIS countries in spite of the international agreements signed;
- low level of concurrence and consistency of fees levied from vehicles;
- existence of permitting system for international transportation based on bilateral agreements on automobile communication;
- availability of complicated procedures for drivers' obtaining visas; and

 of the regional system of vehicle owners' liability insurance and the requirement on mandatory insurance by national insurance organizations.

Most typical indicators of barriers that hinder transit automobile transportation are considerable time delays and costs incurred by carriers when crossing the borders.

CA countries have been encountering this problem for almost 15 years. During that period of time certain projects have been implemented under the auspices of various international organizations and programs. However, recent studies of different expert groups confirm that the problem is still outstanding.

First of all, it should be noted that many measures aimed at border crossing-related data and information collection demonstrate a lack of consistent, permanently operating and responsive observation system.

At the same time, a lack of coordination in such studies, which are often linked to a specific project, preclude formulation of overall picture that would show the state of things in border crossing points. Besides, it is actually not possible to take coordinated measures that would allow to considerably reduce stopover time at border crossing concurrently at many border points.

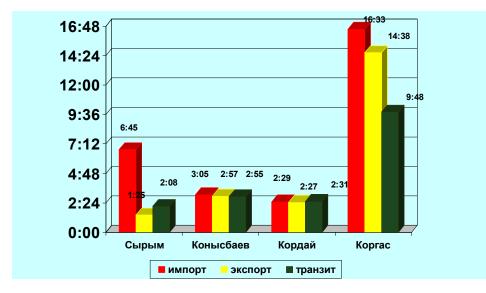
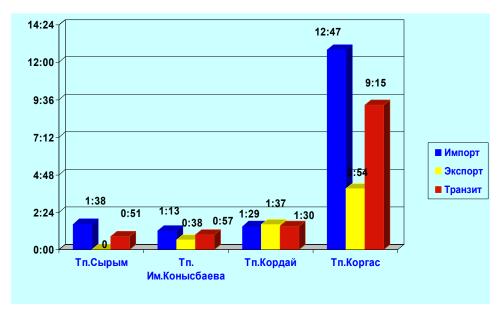


Figure 6.1 show data on vehicle delays of route at four customs stations, obtained within TTFPM project in 2008<sup>6</sup>

Total delay time ay customs stations, hours

<sup>&</sup>lt;sup>6</sup> Presentation "Trade and Transport Facilitation Performance Monitoring Along Transport Corridors in Central/Southern Asia", March, 2009



# Total time spent for all control procedures, hours Figure 6.1 – Results of TTFPM project, 2008.

For comparison: in South-Eastern European countries an average delay time is 2 hours (maximum 3 hours, minimum 1 hour of delay time).

Currently, in all CA countries several types of control are accomplished, such as border, customs, transport, sanitary, veterinary, and phytosanitary control (two last types – when necessary).

Only Kazakhstan has legislative provisions stipulating that all control agencies should be located in one building. In addition, Kazakhstan takes practical measures to reduce the number of control agencies at the border and to delegate transport, sanitary-epidemiological, veterinary and phytosanitary control under the competence of the customs authorities.

Neither country has legislatively fixed any time normatives for passing each type of control at border checkpoints. Thus, laws of each CAR country contain the standards fixing that the vehicle stopover time should be minimal. In Kazakhstan it should not exceed 5 hours, in Kyrgyzstan – one hour.

It is reasonable to recommend replicating Kazakhstani practice in:

- implementing the system of coupons for passing control in checkpoints (that would allow monitoring the time spent);
- delegating the functions of coordinating activities/arranging the work of control authorities in checkpoints of one authority (personalization of responsibility);
- reducing the types of border control (reducing the control time and thus therefore opportunities for corruption)..

It seems necessary for the CA countries to consider the CEMT Resolution 99/2 to remove barriers at border crossing points for international cargo transportation, which recommends that

in the locations where lengthy delays are identified, member countries determine targeted reduction for the existing time delay of vehicles and for accomplishing the formalities, starting from reducing average time delay by 50% within 1-2 years, with an ultimate target for a 5-year period that the time delay should not exceed one hour. Specific targets should also be set for reducing the delay time at peak loads.

Cargo reception and delivery operations are accomplished in railroad checkpoints of the CAR countries, as well as certain types of control, such as border, customs, sanitary, veterinary, and phytosanitary (the last – when necessary).

Neither of CA countries has legally fixed the standards of time required to pass state types of control at border stations of delivering and receiving railroads in neighboring countries. Stopover time for trains at border stations is determined by the railway authority, thus not limited by law.

Negative factors include technological incompatibility of softwares of the national railway companies and customs authorities, forwarding companies and a lack of information exchange among them.

Another demonstrative example of non-physical barriers is a low level of concurrence and consistency of fees levied from vehicles – re. Table 6.1.

Country	Fees and payments
Kazakhstan	Fee for entry (exit) and transit via the territory of Kazakhstan of foreign vehicles
	carrying passengers and cargoes within international communication - 19 monthly
	calculation indices (about USD 9)
	Fee for passage of heavy and large-size vehicles is determined by calculation.
Kyrgyzstan	Fee for passage of vehicles over man-made facilities – from 25 to 90 soms (USD 0.6-
	2). Fees include VAT, tax for prevention of emergency situations at 1.5% rate and the tax
	for road use at 0.8% rate.
	Fee for passage of vehicles through tunnels at automobile road Bishkek-Osh - for
	trucks – from 10 to 60 soms (USD 0.2-1.3).
	Fee for entry to Issyk-Kul biosphere territory – 200 soms from a foreign vehicle (USD
	4.6)
	Fee for cargo carriage without special permission by foreign carriers (except for
	Kazakhstani, Turkish and Iranian ones) to/from the third country' territory is USD 250.
	For Kazakhstani, Turkish and Iranian carriers the fee is 30% of the cargo transportation
	cost calculated at rate of USD 1 per 1 km of cargo carriage.
	<b>Environmental fees</b> (when the stay at the territory of Kyrgyzstan exceeds 3 days): for
	trucks of CIS countries USD 8-15, of other countries – USD 15-30.
	Fee for heavy and large-size vehicles is determined by calculation.
Tajikistan	Fee for entry in the amount of USD 50-150 for trucks of CIS countries (except for
	Kyrgyzstan and Uzbekistan) and USD 100-200 for vehicles of non-CIS countries.
	Trucks of Kyrgyz Republic are relieved of payment, and the fee for Uzbek vehicles is
	USD 130.
	Fee for transit in the amount of USD 90 for trucks from all countries, except for
	Kyrgyzstan. Kyrgyz trucks are relieved from payment for transit.
	Road fees are collected at automobile checkpoint Tursun-zade.
Turkmenistan	Fee for passage over pontoon bridge is USD 160.

Table 6.1 – Rates of some fees levied from vehicles in CAR countries

Uzbekistan	Fee for entry, transit and carriage to/from third countries levied from trucks and
	buses to the national Road Fund at the Ministry of Finance of the Republic of Uzbekistan
	is USD 300. Exception: road fees are not levied from carriers of Belarus, Kazakhstan and
	Russia based on bilateral agreements, and for Tajikistani carriers the fee is USD 130.
	Since 1.01.2009 an additional fee is implemented for entry and transit of trucks and
	<b>buses</b> that cross the border between Uzbekistan and Tajikistan.
	Fees are as follows:
	For vehicles from Tajikistan – USD 50
	For vehicles from Turkmenistan – USD 20-30
	For vehicles from other countries $-$ USD 100.
	Thus, the fee for each day of stay exceeding 3 days of each truck and bus from Tajikistan
	at the territory of Uzbekistan is USD 70 (formerly it was USD 50 when the stay exceeded
	8 days).
	Payment for excessive load is determined by calculation.
	Fee for civil liability insurance is USD 5-20.

# 7 Basic Conclusions and Recommendations

The current stage of global economic development is characterized by a fast growth of trade among countries and entire continents, which is accompanied by a jump in flows of commodities. Under these conditions the issue of required efficiency of physical distribution of goods in international communications becomes one of the main issues of global community and an incentive for further development of transport routes. In particular, this task is topical for inland CAR countries, which incur high transportation and transit costs.

Historically, interregional transit has been an important element of transportation operations of Kazakhstani and Uzbekistani transport complexes. E.g., during the maximum transportation period, transit flows over the railroad of Kazakhstan exceeded 100 mln. t per year. Transport network of other CAR countries was extensively used in regional transit transportation (e.g., for connecting isolated railroad lines of Tajikistan through the network of Uzbekistan, Uzbek lines through the network of Turkmenistan and vice versa, etc.).

With the formation of independent states on the territory of the former USSR and creation of artificial barriers for transit, the volumes of the latter declined considerably in all CAR countries. Contribution to the reduction of transit was made by the extensive construction of missing sections in the national networks by CAR countries in order to avoid additional border crossing. The present volumes of transit via this region by all transport modes do not exceed 40 mln. t per year.

Nevertheless, the growth trends appearing for transit transportation even under the existing transportation structure (regional transit dominating) allow considering the perspectives for using transit potential of CAR countries to be favorable, the more so during the recent decade opportunities to attract transit flows have significantly increased mainly due to the increasing role of China in the Eurasian market of transit.

The analysis of the world practice in arranging transit traffic proves that the basic areas of optimizing the transit conditions are as follows:

- technical improvement (modernization of transport infrastructure, construction of cutting-off main roads, improvement of border crossing infrastructure, seaports and accesses to them, and use of new types of rolling stock);
- organizational and technical improvement (containerization of transportation, application of multimodal and information technologies, achievements of transport logistics, technological improvement of operations and work of border crossing points, optimization of fundamentals of transit management at the national and international levels); and

- improvement of tariff policy, particularly in the field of container transportation.

The basis of transit transportation potential of the CA countries is comprised by a network of rail and automobile roads with a system of border crossing points to the territories of the neighboring countries, as well as international merchant seaports of Aktau and Turkmenbashi.

At present, the infrastructure of rail and automobile roads is characterized by considerable physical deterioration and obsolesce of equipment, which affects negatively the service speeds and traffic safety.

A high share of single-track lines is a serious drawback of regional railway corridors. Single-track lines, by supportingpassage of cargo traffic, in line with transit, within domestic and export-import communications, have limited throughput capacity.

Besides, they put significant constraints on train speeds, particularly at high traffic density. According to the studies conducted in the past by the Central Scientific Research Institute of the Ministry of Railways of the USSR, when filling in the throughput capacity of single-track lines by more than 50%, its operational characteristics deteriorate considerably (particularly service speed) due to the increasing number of train stops at meeting points.

In order to ensure a sufficient throughput capacity and high speeds in the international communications, one of the primary requirements of the global standards to the technical equipment of international transport corridors includes essential availability of double-track main lines.

Poor operational condition remains a major problem of automobile roads. Thus, according to the information of the Ministry of Transport and Communications of Kazakhstan, the length of automobile roads of national significance that were in good condition was 7.2 thousand km in 2008, i.e. only 30.5 %. In Kyrgyzstan that indicator for international transport corridors was 23%, in Tajikistan – only 20%.

Poor quality of road pavement is one of the reasons for high rate of traffic accidents, high consumption of fuel and lubricants, excessive expenses for repair and maintenance of rolling stock, and low commercial speeds of cargo delivery. These have an adverse effect on the transport component in the cost of goods and services, thus reducing competitiveness of transit routes in Kazakhstan.

Deterioration of technical condition of automobile roads in CAR countries is primarily caused by insufficient funding of their maintenance and repair. In spite of annual increase of budget expenses for these purposes, the funds allocated are still insufficient.

The apparently poor situation in the field of transport infrastructure of CAR countries can and should be changed by focusing major efforts primarily on the rehabilitation of technical potential of the existing network. Taking into consideration the crucial role of railroad transport,

it deems necessary for the CA countries, being owners of railroad infrastructure, to take more active financial part in its rehabilitation and modernization. Basic area of the road policy in the CAR countries should become putting the roads in compliance with the requirements of the international standards and development and implementation of targeted programs to improve traffic safety.

But nevertheless, even given the current infrastructure condition, CA countries are not able so far to demonstrate high performance in transit communications. For them, more apparent drawbacks are organizational and technical shortcomings of the transportation process and availability of different non-physical barriers. The basic ones are given below:

- lengthy downtime of vehicles at border crossing points. Neither of the CAR countries have legally fixed time normatives for passing each type of control when crossing borders. Accelerated passage of vehicles on the basis of carnet TIR is not used to a full extent;
- stopover of vehicles on route with frequent instances of involuntary opening and inspection of sealed transit vehicles and cargoes;
- insufficiently harmonized transit tariffs in CIS countries in spite of the international agreements signed;
- low level of concurrence and consistency of fees levied from vehicles;
- availability of permitting system for international transportation based on bilateral agreements on automobile communications;
- complicated procedures of obtaining visas by drivers; and
- a lack of regional system of vehicle owners liability insurance and the requirement on mandatory insurance by national insurance organizations.

At present, certain legal and regulatory framework has been in place in the CAR countries, which provides mainly for implementing the principles of freedom of transit. However, implementation of this possibility is complicated in full by:

- a lack of mechanism of control over enforcement of international standards;
- certain drawbacks in national laws related to transit issues;
- a lack of systematic approach to the methods of improving national legal provisions;
- insufficient refining of conditions and potential implications of joining international agreements (Conventions and Treaties); and
- a lack of laws and regulations on direct mixed transportation, on transport and forwarding operations (the Law on Transport and Forwarding Operations has been adopted only in Tajikistan).

In order to efficiently formulate a comprehensive legal and regulatory framework harmonized with the international standards, the CAR countries should resolve the following issues in the near term:

- join the Barcelona Convention (Convention and Statute on Freedom of Transit) as of April 20, 1921;
- revise the system of bilateral relations between countries parties to the Agreements on international automobile transportation;
- create a regional system of insurance of civil liability of vehicle owners "White Card" and /or joining the international insurance system "Green Card";
- develop a mechanism of implementation and control over enforcement of international agreements (Conventions, Treaties);
- develop a methodology to unify national laws based on international standards; and
- draft and pass laws and regulations that would regulate transit transportation, such as direct mixed transportation, on transportation and forwarding operations.

	2000		2001		2002			2003				
	Total	Export	Import									
Kazakhstan	13852.2	8812.2	5040.0	15085.1	8639.1	6446.0	16254.3	9670.3	6584.0	21335.4	12926.7	8408.7
Kyrgyzstan*	1058.6	504.5	554.1	951.5	480.0	471.5	1076.9	487.3	589.6	1304.5	582.7	721.8
Tajikistan	1459.3	784.3	675.1	1339.1	651.6	687.5	1457.5	737.0	720.5	1678.0	797.2	880.8
Turkmenistan	4290.5	2505.5	1785.0	4969.2	2620.2	2349.0	4975.0	2855.6	2119.4	6144.0	3632.0	2512.0
Uzbekistan	6212.1	3264.7	2947.4	6307.3	3170.4	3136.9	5700.4	2988.4	2712.0	6689.2	3725.0	2964.2
Total	26872.7	15871.2	11001.6	28652.2	15561.3	13090.9	29464.1	16738.6	12725.5	37151.1	21663.6	15487.5

Table A.1 – Dynamics of External Trade in CA Countries

	2004		2005		2006			2007				
	Total	Export	Import	Total	Export	Import	Total	Export	Import	Total	Export	Import
Kazakhstan	32877.5	20096.2	12781.3	45201.2	27849.0	17352.2	61927.2	38250.3	23676.9	80511.7	47755.3	32756.4
Kyrgyzstan*	1667.9	721.1	946.8	1862.7	674.0	1188.7	2822.4	891.2	1931.2	4109.6	1321.1	2788.5
Tajikistan	2106.2	914.9	1191.3	2238.5	908.7	1329.8	3121.6	1399.0	1722.6	3923.6	1468.2	2455.4
Turkmenistan	6850.0	4000.0	2850.0	10538.0	6174.0	4364.0	9713.2	7155.5	2557.7	9357.0	5421.0	3936.0
Uzbekistan	8669.0	4853.0	3816.0	9500.1	5408.8	4091.3	11171.4	6389.8	4781.6	14227.1	8991.5	5235.6
Total	52170.6	30585.2	21585.4	69340.5	41014.5	28326.0	88755.8	54085.8	34670.0	112129.0	64957.1	47171.9

	2008				
	Total	Export	Import		
Kazakhstan	109072.6	71183.6	37889.0		
Kyrgyzstan*	5714.6	1642.2	4072.4		
Tajikistan	4676.1	1406.3	3269.8		
Turkmenistan	12083.0	7567.0	4516.0		
Uzbekistan	19077.0	11572.9	7504.1		
Total	150623.3	93372.0	57251.3		

\* except for the volume of external trade by natural entities

Annex A



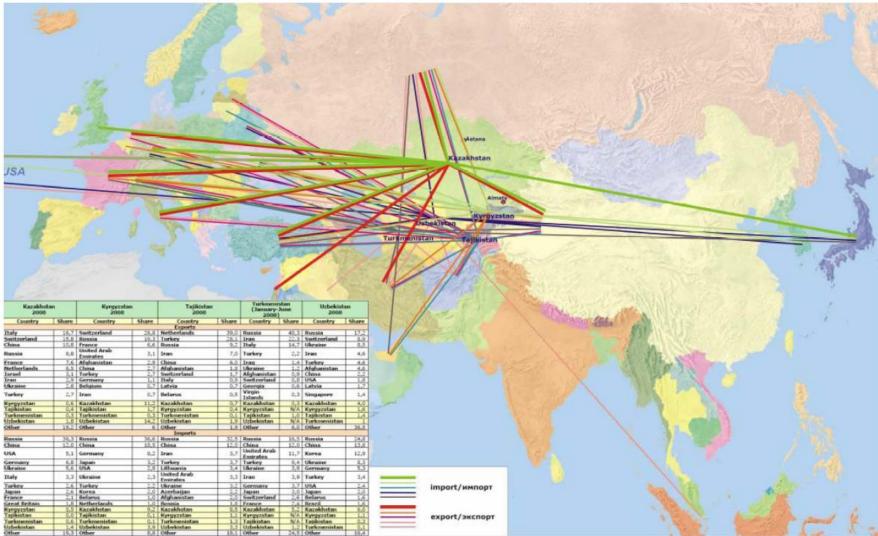


Figure B. Geographic Distribution of External Trade in CA Countries

Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan					
Convention on International Automobile Passenger and Cargo Transportation (October 9, 1997, Bishkek)									
12.06.00 (ratified)	13.04.00 (ratified)	27.07.00 (ratified)	-	14.09.99 (ratified)					
Agreement on Principles of Est	Agreement on Principles of Establishing Uniform Transport Space and Interaction among Member Countries of the Commonwealth of Independent States in the Field of Transport Policy (October 9, 1997, Bishkek)								
07.02.00	18.05.98	27.07.00	-	30.04.98					
Protocol on	International Automobile Roads	in the Commonwealth of Indepe	endent States (September 11, 199	8, Moscow)					
17.07.00	20.07.99	21.09.99	-	-					
Agreemen	t on Mandatory Passenger Insura	nce at International Automobile '	Transportation (January, 13, 199	9, Saratov)					
+	+	03.10.00	-	+					
Agreement on Procee	dure of Transit Via Territories of	Member Countries of the Comm	onwealth of Independent States (	(June 4, 1999, Minsk)					
03.05.00	21.08.03	27.04.00	-	+					
Agreement on Weights and Sizes of Vehicles Accomplishing Interstate Transportation over Automobile Roads of Member Countries of the Commonwealth of Independent States (June 4, 1999, Minsk)									
03.02.03	14.04.00	14.04.00	-	+					
Agreement on Use and Development of Transport Communication Networks for Economic Needs, Military and Humanitarian Transport of Member Countries of the Commonwealth of Independent States (May 31, 2001, Minsk)									
09.01.04	10.03.03	10.03.03	-	-					
Agreement on Interaction of Member Countries of the Commonwealth of Independent States in the Field of International Automobile Cargo Transportation (September 18, 2003, Yalta)									

# Table C.1 – Status of CA Countries Joining International Conventions and CIS Agreements

Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan					
12.08.05	12.08.05	12.08.05	-	+					
Agreement on Implementation	Agreement on Implementation of International Certificate of Weighing Cargo Vehicles at Territories of Member Countries of the Commonwealth of Independent States (April 16, 2004, Cholpon-Ata)								
19.05.05	12.08.05	19.05.05	-	-					
Resolution on Concept of Agree	Resolution on Concept of Agreed Transport Policy of Member Countries of the Commonwealth of Independent States through 2010 (September 15, 2004, Astana)								
15.09.04	17.01.06	18.04.05	-	+					
Agreement on Harmonization of	f Requirements to Additional Tra the Commonwealt	ining and Professional Competen h of Independent States (Novemb		arriers of Member Countries of					
21.03.08	+	+	-	-					
Resolution on Draft Priority Areas of Cooperation Among Member Countries of the Commonwealth of Independent States in the Field of Transport Through 2020 (November 14, 2008, Chisinau)									
+	+	+	-	+					
Resolution	Resolution on Basic Areas of Market Development of International Automobile Services (November 14, 2008, Chisinau)								
+	+	+	-	+					



- completions data of domestic procedures are shown
- domestic procedures are not completed
- not signed