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Development of transport system of the Republic of Kazakhstan

The article discusses the state and development of the transport system of the Republic of Kazakhstan at the present stage. Development of the transport system is one of the most important conditions for the further restructuring of the economy of the country and improving the competitiveness of the domestic goods and services in the world markets. The article considers the dynamics of the volume of transport services in recent years: passenger and freight transportation by pipelines. The article shows the importance of transcontinental routes passing through the vast territory of the Republic of Kazakhstan. The article considers the problems of development of the main modes of transport in Kazakhstan: rail and road. It shows a slight amount of water transport services are characterized by geographical features of the terrain and location. The measures to achieve the objectives of the use of the transport potential of the country are listed here. Particular attention is paid to the key companies in the railway sector - JSC «National Company» «KazakhstanTemirZholy». In the article attention is paid to the State program of development and integration of the transport system infrastructure of Kazakhstan until 2020, provided the measures recommended therein. The transport complex of the Republic of Kazakhstan now provides the overall needs of the national economy and population in transport services. However, Kazakhstan has many ways of developing a transport potential.

Keywords: Transport system, public transport, passenger traffic, cargo turnover, cargo transportation, vehicle fleet, railway transport, inland water transport, air transport, pipeline transportation.

Development of transport system of Kazakhstan is one of the important conditions for the further restructuring of the economy, improving the competitiveness of domestic goods and services in world markets and the integration of the country. Globalization of economic relations in the early 21st century, allows to consider transport as one of the most important integration processes. Development of these processes along with international and domestic competition imposes additional requirements on transport to accelerate the movement of goods, improve the quality of transport services, and reduce transport costs in the final price of products. The transport complex of the Republic of Kazakhstan now provides the overall needs of the national economy and population in transport services. The main goal of the state policy in the transport sector is to create a transport system capable of meeting an increasing in volume and qualitatively changing demand for passengers and cargo effectively and safe for humans and environment [1]. And thus, the transport system must, primarily meet the growing demand for transport services and its structural change. Universal multimodal terminals, ensuring effective interaction between different modes of transport and with cargo owners, are becoming the main hubs of the transport system. Kazakhstan has many ways of developing a transport potential.

The transport complex of the Republic, represented by rail, road, inland waterway, air and pipeline modes of transport, highways and railroads, navigable waterways, has an essential role in the implementation of inter-farm and inter-state relations (Fig. 1). The share of transport sector in the gross domestic product of the Republic amounted to 6.7 % in 2014 [2].

As at January 1, 2015 the network of public transport in Kazakhstan consisted of 15.3 thousand km of railways; 96.4 thousand km of motor roads; 4.2 thousand km of navigable inland waterways; 234.1 km of trolleybus, tram and underground tracks; 23.2 thousand km of trunk pipelines [2].

The volume of cargo transportation by all modes of transport, considering an assessment of the amount of transportation by individual entrepreneurs engaged in commercial transportation, was 3634.4 million tons in 2014, which is 3.6 % more than in 2013.

Passenger traffic considering an assessment of volume of transportation by individual entrepreneurs engaged in commercial transportation, in 2014 increased by 6.4 % and amounted to 21293.2 million people (Fig. 2).

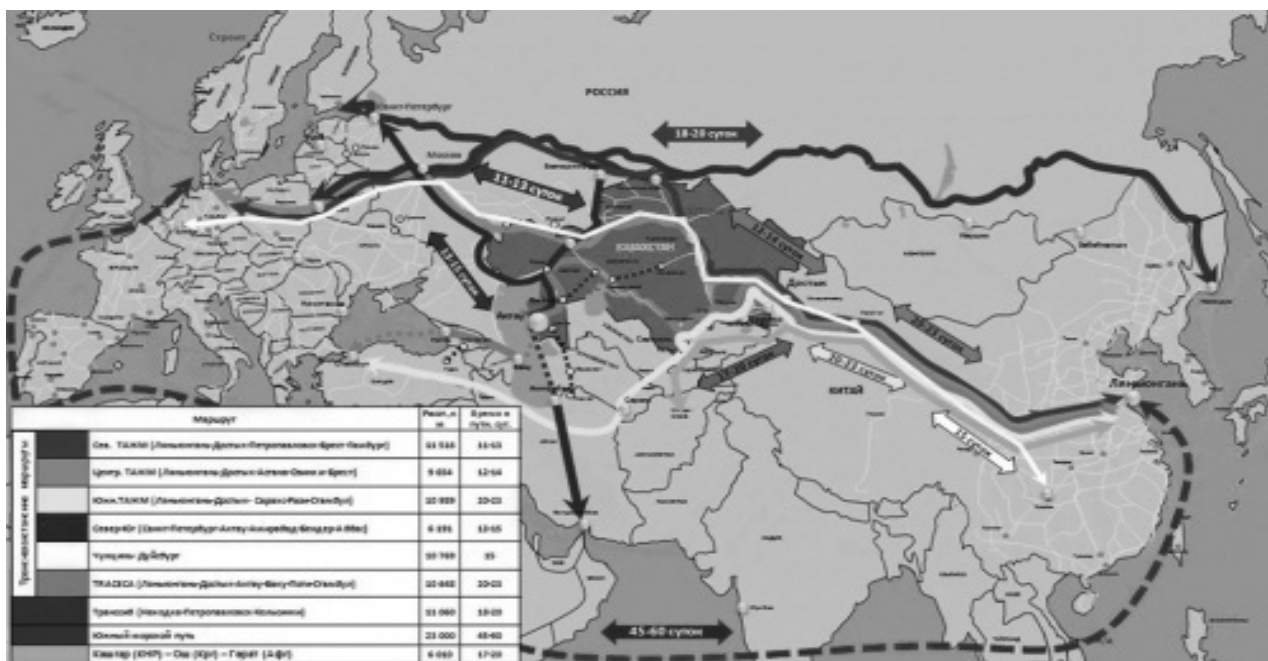


Figure 1. Transport highways of Kazakhstan (source: altaynews.kz)

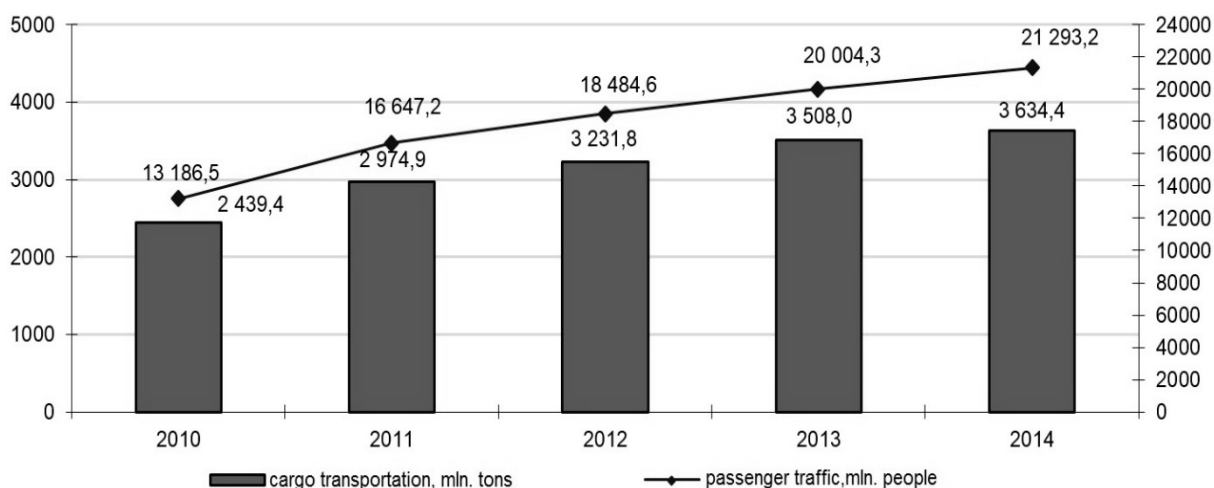


Figure 2. Cargo transportation and passenger traffic taking account of the assessment of the amount of transportation by individual entrepreneurs engaged in commercial transportation, for 2014 (source: www.stat.gov.kz)

In the traffic structure the largest volumes of transportation are shown by road and urban electric transport. Daily transportation of goods and passengers within settlements, made by both large transport holdings and individual entrepreneurs, occupy the major share in it.

Table

Transportation in the Republic of Kazakhstan by all modes of transport in 2015 y.

Types of transportation	Transported cargo, luggage, thousand tons	Transported passengers, thousand people
1	2	3
Railway transport	335 141.2	26 773.3
Motor transport and urban electric transport	3 174 292.3	21 810 628.2
Pipeline transportation	215 448.7	

1	2	3
Air transport	17.0	5 925.0
Inland water transport	1 216.5	48.0
Sea transport	2 476.6	

Note. Source: www.stat.gov.kz

In the transport system of Kazakhstan, transporting cargo and passengers between the settlements, railway transport has a leading role. Long distances of transportation comparatively cheap rates for passenger and cargo transportation make railway transport the most demanded by the users [3].

574 km of 15,341.1 km of the exploited railway lines are owned by other states. Besides, 275.1 km of Kazakhstan railways are located on the territories of other states. From the roads, belonging to Kazakhstan, 4216.4 km are electrified, 4900.3 km are two-track and multi-track.

In 2014 the railway transport carried 275.3 million tons of cargo, cargo turnover amounted to 216.6 billion tkm. Compared with 2013, the volume of cargo transportation decreased by 6.3 %, cargo turnover fell by 6.4 %. The number of passengers was 35.2 million persons; the passenger turnover amounted to 28.0 billion pkm. In comparison with 2013 there was an increase of these indicators by 23.3 % and 35.8 % respectively.

The main types of cargo for railways of the total volume are coal (36.5 %), iron and manganese ore (10.3 %), oil cargo (9.2 %).

In the market infrastructure development, expansion of domestic and foreign trade important role is played by automobile transport.

Vehicle fleet of the republic totals 434.7 thousand trucks, 99.0 thousand buses, 4000.1 thousand passenger cars. Besides, 58.5 thousand motorcycles and 176 thousand automobile trailers are registered in the republic.

Taking into account assessment of the amount of transportation by individual entrepreneurs engaged in commercial transportation, in 2014 motor transport of the republic transported 3.1291 billion tons of cargo. Cargo turnover amounted to 155.7 billion tkm. Compared with 2013, the volume of freight increased by 4.9 % and cargo turnover increased by 7.1 %. Number of transported passengers, including transportation by urban electric transport, totaled 21.2524 billion persons. Passenger traffic of transportation comprised 217.4 million pkm. Compared with 2013 there was an increase of these indicators by 6.4 % and 5.8 % respectively.

Inland water transport occupies a small share in the total volume of transport of the republic. In 2014, navigable transport carried 1320.8 thousand tons of cargo, there was an increase by 19.4 % compared with 2013. It transported 67.2 thousand passengers, which is 27.5 % less than in 2013.

Domestic cargo transportation by navigable transport amounted to 1315.7 thousand tons (119.7 %). Among the transported cargo significant volume – 1016.9 thousand tons (125.3 %) – accounted for building materials. The length of navigable inland waterways by the end of 2014 amounted to 4150.9 km.

Air cargo transportation in 2014 amounted to 19.1 thousand tons. Compared with 2013 the volume of freight traffic fell by 20.1 %, the volume of passenger transportation increased by 9 %.

Pipeline transport in Kazakhstan is represented by oil pipelines (8301 km) and gas pipelines (14895.4 km). During 2014, 225 million tons of oil and during 2013 225.9 million tons of gas were pumped.

The Republic of Kazakhstan has the necessary potential for a serious reorientation of foreign trade balance. This potential lies in the unique transit possibilities of the country:

- territory of the Republic of Kazakhstan is located on the direction of the land bridge for cargo flows between the main macroeconomic poles – countries of the European Union and the Asia-Pacific region, America and Eurasia;

- reducing the time of delivery of transit cargoes.

Creating transcontinental highways is beneficial for international trade. About 6 million containers annually runs between the European Union and the Asia-Pacific region.

Three main transit directions pass through the territory of Kazakhstan:

1. Europe – Chine (with the participation of Russia).
2. Europe – Chine (through the countries of the Organization for Economic Cooperation).
3. Russia – Central Asia.

One of the advantages of railway transport is the fact that there are connecting links between towns, districts and suburban areas.

But the main problem for automobile transport is the presence and quality of roads; materials of low quality are used during the construction of roads, thereby it turns out that the asphalt can withstand only a season and it is necessary to lay it down again. For water transport, there is no direct open corridor across the Caspian Sea to Europe. The amount of air transportation is also small due to the little number of airlines. It is planned to open a new transport corridor Western Europe – Western China [4] that will allow to redirect a part of the transported goods from China from sea transport (45 days) to road transport (11 days).

To implement the tasks, set by the President of the Republic of Kazakhstan, and the effective use of transit potential, the priority measures include:

- conducting flexible tariff policy for transportation of goods in transit through the territory of the Republic of Kazakhstan, aimed at attracting additional volumes of transit cargo and the formation of competitive tariff conditions in a highly competitive environment with alternative routes and modes of transport;

- development of international railway border passage Altyntkol – Khorgos, International Center of Boundary Cooperation and free economic zone «Khorgos» Eastern Gate to form a single integrated transport and logistics service and effective development of cargo traffic in transcontinental direction.;

- commissioning of the railway lines Zhezkazgan – Saksaulskaya – Beyneu (988 km), Arkalyk – Shubarkol (214 km railway) to increase the cargo transportation to Europe and the Persian Gulf countries;

- creation of national multimodal operator on the basis of JSC «NC «Kazakhstan Temir Zholy», by combining in itself all transport assets (airport, seaport Aktau, ICBC FEZ Khorgos) and using the experience of leading global logistics companies, which should become a regulator of cargo flows, ensuring load of the transport infrastructure and providing high quality service (speed, service, cost, stability, safety), aimed at improving the efficiency and competitiveness of the transport corridors of Kazakhstan;

- expansion of the sphere of influence of JSC «NC «Kazakhstan Temir Zholy» in the market of container (multi-modal) transportation in a strategic partnership with the largest logistics companies of China and Europe;

- creation of internal and external terminal networks to consolidate and increase the quality and speed of cargo handling in the terminals.

JSC «NC «Kazakhstan Temir Zholy» is the largest transport and logistics holding company of national significance, which is part of the assets of JSC «Sovereign Wealth Fund «Samruk-Kazyna» [5]. In pursuance of the order of the Head of State N.A. Nazarbayev on the formation of a national logistics operator with a full range of assets and competencies on the basis of JSC «NC «Kazakhstan Temir Zholy» Aktau seaport, International Center of Boundary Cooperation «Khorgos» and the free economic zone «Khorgos – Eastern Gate», network of airports were transferred to the company's management. As a national logistics operator JSC «NC «Kazakhstan Temir Zholy» solves tasks of the Strategy «Kazakhstan – 2050» on the development of transit potential and increasing transit traffic through Kazakhstan by 2020 in 2 times, and by 2050 in 10 times. Taking into account the changes in the external environment and the expansion of the range of the company's activities, on November 26, 2015 the Board of Directors of JSC «NC «Kazakhstan Temir Zholy» approved Development Strategy of JSC «NC «Kazakhstan Temir Zholy» until 2025. For realization of set strategic objectives, as well as taking into account the existing capabilities and limitations, JSC «NC «Kazakhstan Temir Zholy» focuses on 8 blocks of strategic initiatives:

1. Development of the sales functions in the domestic market.
2. Improvement of utilization of own freight and passenger cars.
3. Development of container transit.
4. Improving the efficiency of passenger transportation.
5. Improvement of operational efficiency.
6. Development of a project office (to increase efficiency and reduce implementation term of strategic initiatives).
7. Changing the system of state regulation.
8. Support of transit via Kazakhstan by China.

By 2025 JSC «NC «Kazakhstan Temir Zholy» should become an integrated transport and logistics company, the number of task of which in addition to the growth of shareholder value, includes the implementation of the state strategy on the organization of transit transportation and logistics services. At the same time, the company will solve the problem of increasing EVA index to about 359 billion tenge already by 2020. Construction of the railway line «Zhetygen – Khorgos» is one of the largest transport sector projects of Kazakhstan. This railway line has a great strategic importance. The project will enable to solve the following key strategic objectives:

- expansion of implementation possibilities of the country's export potential;
- creation of a second overland transit (along with the border crossing Dostyk) towards Europe – Asia through the territory of the Republic of Kazakhstan;
- significant reduction in the distance of transportation of export-import cargoes.

The new railway line Khorgos – Zhetygen is a breakthrough project that allows to reduce distance of freight traffic:

- between the countries of the Far East (Korea, China, Japan) and the southern regions of Kazakhstan, countries of Central Asia, Iran, Transcaucasia and farther to 500 km;
- between the Persian Gulf and the Far East in conjunction with the project implemented in Iran, a new railway line Bafq – Mashhad, to 1300 km.

Investment projects planned by the Transport Committee [6]:

- Trans-European highway E40.
- Dostyk – Almaty – Astana – Moscow.
- Urumqi – Kyrgyzstan – Iran.

Dry port KTZE – Khorgos Gateway was built in order to increase export and transit potential of Kazakhstan in the Eurasian region, to develop the competencies in the field of global logistics, to attract foreign investment. This port is an important link in the implementation of the program of the Head of State «Nurly Zhol – Path to the Future» and is located on Kazakhstan – Chinese border, on the territory of Kazakhstan, which is located in the center of Special Economic Zone «Khorgos – Eastern Gate».

The main advantages of the dry port:

- quick time of trains processing;
- safety and security of the cargo in accordance with DP World standards;
- information in real time, including photographs of the goods/containers, available on the corporate website;
- providing new opportunities for business development due to the convenient location of logistics and industrial zones;
- open access to a wide market (Eurasian Economic Union, Central Asia, China, Europe, Turkey and Persian Gulf countries).

In order to improve and create additional infrastructure of passenger transportation in field of road transport, the State program for the development and integration of the infrastructure of transport system of the Republic of Kazakhstan until 2020 akimats of regions and Astana and Almaty cities carry out a work on the construction of 8 bus terminals, 43 bus stations, 160 points of service of passengers (villages, auls) and 1,048 taxi stations.

Taking into account development of infrastructure, automobile roads and carriers by 2020, a full (100 %) coverage of settlements with regular bus service will be provided, for this purpose additional regular bus routes will be opened. Further measures to increase the competitiveness of domestic carriers will allow to increase the share of domestic carriers in the international cargo transportation market to fifty percent level by 2020. In the framework of international cooperation in the field of international automobile transportations the Protocol on the amendment of the Agreement between the Government of the Republic of Kazakhstan and the Government of the Republic of Belarus on international automobile communication of January 19, 2004 came into force on January 26, 2015, providing introduction of permit-free system for transit.

On August 28, 2015 the Agreement between the Government of the Republic of Kazakhstan and the Government of the Republic of Serbia on international automobile communication was signed. Also on March 2, 2016 the Protocol on the amendment of the Agreement between Kazakhstan and Kyrgyzstan on international automobile communication of 25 December 2003 came into force, providing introduction of permission system on transportation of goods to/from other countries between Kazakhstan and Kyrgyzstan. Besides, the Agreements in the field of international automobile transportations with Azerbaijan and Bosnia and Herzegovina are prepared for signing. Work on ratification of the previously signed agreements with Austria, Norway, Iran and the Multilateral Agreement within the SCO framework is carried out. Within the framework of the State program for infrastructure development «Nurly Zhol» for 2015-2019 years, approved by the Decree of the President of the Republic of Kazakhstan N.A. Nazarbayev on April 6, 2015 № 1030, implementation of the following projects is stipulated: «Construction of the railway line Borzhakty – Ersai» 14 km long and «Construction of the additional tracks on section Shu – Almaty» with the length of 110 km.

Thus, the construction of the railway line Borzhakty – Ersai is aimed at developing of the coastal infrastructure of the port Kuryk and is focused on transport provision of sustainable cargo flow to onshore facilities under construction belonging to companies JSC «KazMunayGaz», JSC «Kazmortransflot», LLP «TenizService» and LLP «Ersai». Moreover, the creation of more than 3.5 thousand new jobs and construction of social facilities will entail the improvement of the social sphere in Karaganda, Kyzylorda, Aktobe, Mangystau and Kostanay regions. It is also important to further expand the geography of cargo transportation, wherefore work on the signing of new agreements in the field of international automobile transportations with Denmark, the United Arab Emirates and Portugal will be carried out.

In conclusion it can be noted that the strategy for development of the transport system of Kazakhstan involves the positioning of Kazakhstan in the world market as and in the role of transcontinental economic bridge for interaction among European, Asia-Pacific and South Asian economies. In this case the main task is technologization of processes of resources' flow in space between the East and the West (Asia and Europe). And at the regional level Kazakhstan is positioned as a modern service center. Using existing potential, Kazakhstan should become the developed service center of the region providing a wide range of services that meet international standards.

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Қазақстан Республикасы көлік жүйесінің дамуы

Мақалада қазіргі кезеңдегі Қазақстан Республикасы көлік жүйесінің жағдайы мен дамуы талқыланды. Көлік жүйесін дамыту экономиканың одан әрі қайта құрылымдау және әлемдік нарықтарда отандық тауарлар мен қызметтердің бәсекеге қабілеттілігін арттыру үшін ең маңызды шарттарының бірі болып табылады. Мақалада соңғы жылдар ішіндегі транспорттық қызмет көрсету көлемінің динамикасы қарастырылған: адам және жүк тасымалдау, құбырлар желісін транспорттау. Қазақстан Республикасының кең территориясы арқылы өтетін трансконтиненттік магистральдердің дамуының маңыздылығы көрсетілген. Қазақстандағы транспорттың негізгі түрлерінің дамуының мәселелері зерттелген: теміржолдық және автокөліктік. Сондай-ақ авторлар су транспортының қызмет көрсету көлемінің аз екенін көрсетіп, ландшафттың және географиялық орналасудың ерекшеліктерін сипаттаған. Болашақта елдегі көлікті қолданудың дамуы жөніндегі жүзеге асыру шараларын тізімдеген. «Ұлттық компания «Қазақстан Темір Жолы» АҚ теміржолдық саласына ерекше көңіл аударылды. Қазақстан Республикасының 2020 жылға дейінгі транспорттық жүйе инфрақұрылымының дамуы және интеграциясына арналған мемлекеттік бағдарламаға көңіл бөліп, қарастырылатын сұрақтар көлемін ұсынды. Қазіргі уақытта Қазақстан Республикасының көлік кешені ұлттық экономиканың және халықтың көлік қызмет көрсетулеріне деген қажеттілігін толығымен қамтамасыз етеді. Алайда Қазақстанда көлік әлеуетін әрі қарай дамыту үшін көптеген жолдар бар.

Кілт сөздер: көлік жүйесі, қоғамдық көлік, жолаушылар тасымалдау, жүк айналымы, Қазақстан бойынша жүк тасымалдары, автопарк, темір жол, ішкі су көлігі, әуе көлігі, құбыр көлігі.

Е.А. Семак, Б.Х. Раимбеков, М.К. Асанова, А.Е. Кожабергенова

Развитие транспортной системы Республики Казахстан

В статье рассматриваются состояние и развитие транспортной системы Республики Казахстан на современном этапе. Развитие транспортной системы является одним из важнейших условий дальнейшей реструктуризации экономики страны и повышения конкурентоспособности отечественных товаров и услуг на мировых рынках. В статье показана динамика объема оказания транспортных услуг за последние годы: пассажирских и грузовых перевозок, транспортировки трубопроводами. Выделена значимость развития трансконтинентальных магистралей, проходящих через обширную территорию Республики Казахстан. Обозначены проблемы развития основных видов транспорта в Казахстане — железнодорожного и автомобильного. Определена незначительность объема услуг водного транспорта, охарактеризованы географические особенности ландшафта и расположения. Перечислены меры по реализации задач развития использования транспортного потенциала страны. Особое внимание обращено на ключевую компанию в железнодорожной отрасли — АО «Национальная компания «Қазақстан Темір Жолы». В статье уделено внимание Государственной программе развития и интеграции инфраструктуры транспортной системы Республики Казахстан до 2020 г., приведены предусмотренные в ней меры. Отмечено, что в настоящее время транспортный комплекс Республики Казахстан в полном объеме обеспечивает необходимость национальной экономики и населения в транспортных услугах, однако у республики имеется еще много способов развития транспортного потенциала.

Ключевые слова: транспортная система, общественный транспорт, пассажирские перевозки, грузооборот, грузоперевозки, автопарк, железнодорожный транспорт, внутренний водный транспорт, воздушный транспорт, трубопроводный транспорт.

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