THE CURRENT STATE OF TRANSPORT INFRASTRUCTURE IN THE REPUBLIC OF KAZAKHSTAN

Anar AITKALIYEVA* *Doctoral student, Kazakh University of Economics, Finance and International Trade, Nur-Sultan, Kazakhstan, https://orcid.org/0000-0002-1823-1048, Scopus ID 57191404980, anar.aitkaliyeva@mail.ru*

Alma GALIYEVA *Doctor of Economics, Professor of the Department of "Economics" of the Kazakh University of Economics, Finance and International Trade, Nur-Sultan, Kazakhstan, https://orcid.org/0000-0002-8934-5667, ScopusID 57191405407, alma_galiyeva@mail.ru*

Aygul TOXANOVA *Doctor of Economics, Professor of the Department of "Economics" of the Kazakh University of Economics, Finance and International Trade, Nur-Sultan, Kazakhstan, https://orcid.org/0000-0001-5495-7180, ScopusID 57191414215, taigul1@mail.ru*

https://doi.org/10.52123/1994-2370-2021-561
UDC 334
CICSTI 06.56.31

Abstract. The article discusses the development of transport infrastructure in the Republic of Kazakhstan. This topic is especially relevant to our country with the huge territory and irregular allocation of resources and population. The article analyzes the main indicators of transport infrastructure development, which made it possible to assess its current state. The state of infrastructure is also reflected to the international rankings of the country's competitiveness, so the authors analyzed the World Economic Forum's Global Competitiveness Index by the Infrastructure factor and the World Bank's Logistics Performance Index. Based on the PESTLE analysis, the key environmental factors influencing the functioning and development of the transport industry in Kazakhstan were identified. These facts indicate the need to further improve the policy of transport and infrastructure development of Kazakhstan and develop more effective mechanisms for its implementation.
Keywords: transport infrastructure, development, competitiveness, factors, investment, Nurly Zhol.
JEL codes: O18, R42, H54

Аңдатпа. Мақалада Қазақстан Республикасында көлік инфрақұрылымының дамуы қарастырылады. Бұл тақырып біздің аумағы үлкен және ресурстармен халықтың біркелкі бөлінбеген еліміз үшін өте өзекті. Мақалада көлік инфрақұрылымын дамытудың негізгі көрсеткіштеріне талдау жасалды, бұл оның қазіргі жағдайын бағалауға мүмкіндік берді. Инфрақұрылымның жай-күйі елдің бәсекеге қабілеттілігінің Халықаралық рейтингтерінде де көрініс табады, сондықтан авторлар "Инфрақұрылым" факторы бойынша Дүниежүзілік экономикалық форумның Жаһандық бәсекеге қабілеттілік индексіне және Дүниежүзілік Банктің логистика тиімділігі индексіне талдау жүргізді. PESTLE талдау негізінде Қазақстанның көлік саласының жұмыс істеуі мен дамуына әсер ететін сыртқы ортаның негізгі факторлары анықталды. Бұл фактілер Қазақстанның көлік-инфрақұрылымдық даму саясатын одан әрі жетілдіру және оны іске асырудың неғұрлым тиімді тетіктерін әзірлеу қажеттігін айқындайды.
Түйін сөздер: көлік инфрақұрылымы, даму, бәсекеқабілеттілік, факторлар, инвестициялар, Нұрлы жол.
JEL кодтар: O18, R42, H54

Аннотация. В статье рассматривается развитие транспортной инфраструктуры в Республике Казахстан. Данная тема особенно актуальна в нашей стране с её огромной территорией и неравномерным размещением ресурсов и населения. В статье проведен анализ основных показателей развития транспортной инфраструктуры, позволивший оценить ее текущее состояние. Состояние инфраструктуры отражается также на международных рейтингах конкурентоспособности страны, поэтому авторами был проведен анализ Индекса глобальной конкурентоспособности Всемирного экономического форума по фактору «Инфраструктура» и Индекса эффективности логистики Всемирного банка. На основании PESTLE анализа были выявлены ключевые факторы внешней среды, влияющие на функционирование и развитие транспортной отрасли Казахстана. Данные факты свидетельствуют о необходимости дальнейшего совершенствования политики транспортно-инфраструктурного развития Казахстана и выработки более эффективных механизмов ее реализации.

* *Corresponding author: A. Aitkaliyeva, anar.aitkaliyeva@mail.ru*

Ключевые слова: транспортная инфраструктура, развитие, конкурентоспособность, факторы, инвестиции, Нұрлы Жол.
JEL коды: O18, R42, H54

Introduction

In the economy of Kazakhstan, transport industry plays an important role, as the growth of public production and the performance of general market transformation is largely depends on its level of development and efficiency. The specificity of transport as a sector of the economy is that it does not produce any goods, but only take part in its creation, by providing production with raw materials, equipment and by delivering finished products to the consumer. Transport infrastructure has a great importance in our country with its vast territory and uneven distribution of resources, population and fixed assets.

According to the message to the people of Kazakhstan "Kazakhstan's way 2050: one aim, one interests, one future": "Transport infrastructure is circulatory system of our industrial economy and society. There are no developed country without superb modern highways (trunks)" *(Dalenov, 2019).* In a place without comfortable and high-quality roads there are no developed and competitive industrial base, nor scientific technology with potential, nor high standards of living. If high quality roads building methods is not acquired, then no strategic aims will be achieved *(Nazarbayev, 2014).*

The main tasks for today are to eliminate transport insufficiency, to increase the competitiveness of Kazakhstan's carriers, and to reduce transport costs.

An analysis of the existing level of development and placement of the Republic's transport infrastructure shows that it does not meet the requirements of the Republic's economy's development and the prospects for its development in transport services.

The natural cause of this negative phenomenon is an artificial decrease in the country's economic growth. Without any sufficient transport link between regions, it is impossible to implement policies that promote economic development.

Materials and methods

The methodological basis of the research is various approaches and methods widely used in modern science. A literature review was conducted, which is the main type of research to identify important information on the research topic.

In the process of studying problems, the following methods are supposed to be used: analysis and synthesis. Analysis will allow you to decompose the studied problem into its component parts, and synthesis will combine the parts obtained during the analysis into a single whole. In this study, these methods will be used most actively, since all work will be based on the study of public-private partnership projects implemented in the Republic of Kazakhstan, identifying the advantages of implementing investment projects in the transport infrastructure of Kazakhstan through the mechanism of public-private partnership.

To analyze the level of development of transport infrastructure, research data processing methods based on the analysis of data from the Bureau of National Statistics of the Republic of Kazakhstan and data from the global Competitiveness Index of the World Economic Forum were applied.

Thus, the use of these methods allowed us to form a vision of the current situation in the transport infrastructure of the Republic of Kazakhstan, their sectoral breakdown, and the specifics of using public-private partnership mechanisms in transport infrastructure.

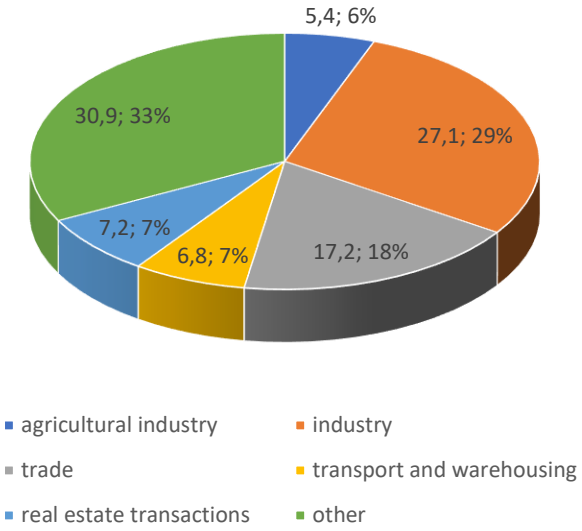
Results (classification)

The location of the Republic of Kazakhstan in the center of the Eurasian continent determines its geopolitical role as a transit bridge between Europe and Asia, as well as between Russia and China. For the share of transit cargo traffic through Kazakhstan in the total volume of transit in the "Europe-Asia" direction to grow proportionally to trade volumes, it is necessary to create a technically sufficient, technologically equipped transport infrastructure with competitive service in advance of development, along with constant simplification of internal procedures and elimination of non-physical barriers to trade and transit. In this regard, in the country an active policy is being pursued to increase the attraction of funds to the transport

infrastructure of Kazakhstan and to create a highly advanced modern transport network *(World Economic Forum, 2020).*

However, an important bottleneck to Kazakhstan's economic development is the state of infrastructure systems, particularly in transport. According to Organization for Economic Co-operation and Development around 75% of existing transport infrastructure requires replacement or rehabilitation. Assuming its GDP grows at 4.3% year, Kazakhstan will need to spend USD 292 billion (or 3.93% of GDP) on average in infrastructure until 2040. Compared to current levels of spending, this translates into an investment gap of USD 84 billion (1.11 % of GDP) across all sectors, but it is more prevalent in cross-border infrastructure, energy and road transport. Therefore, to improve effectiveness of economics and growth in business activities it is necessary to develop basic infrastructure further *(OECD, 2019).*

Transport infrastructure is one of the most important sectors of the economy, holding share of 7% of GDP structure in 2019, which in terms of money equivalent to 6.8 trillion tenge (Figure 1).



Note: Complied by the authors on the basis on the statistics Agency of the Republic of Kazakhstan

Figure 1- Structure of GDP

An increase in economic growth in the country requires the leading development of transport services to meet the growing demand for transportation with an increasing volume of goods produced. World practice shows that an increase in industrial production by 1% causes an increase in traffic volumes by 1.5-1.7%.

In the period from 2010 to 2020, the growth of the economy of Kazakhstan in terms of GDP was 318%, and the growth in the production of goods and services was 242.6% respectively. In turn, the volume of freight traffic by all types of transport increased by 173%. As a result of this, there was a situation when the existing powers of the transport infrastructure inhibited the rates of economic growth.

Prospects for the economic development of Kazakhstan with an expected GDP growth rate of 4.6% in 2025, that is, up to 104.8 trillion tenge, bringing the average annual growth rate in the defense industry to 6.7% and increasing exports to 51.5 billion dollars in 2025 will inevitably lead to an increase in the load on the transport system, especially on the infrastructure of railway and road, which play a key role in industrial and economic processes within country and in their export-import and transit relations *(Official website of the Ministry of National Economy of the Republic of Kazakhstan)*.

The possibilities of increasing the gross national product for calculating transport services has not been fully implemented, since the state of local carriers on the world market of transport services does not correspond to their real capabilities, and the transit potential of the Republic is not

fully used. As a result, there is a situation where the existing capacity of the transport infrastructure constrains the growth rate of the economy.

Transport services focused on receiving needs such as needs of people and economy, on the solution for strategic issue of ensuring unity, security and safety of the country. Satisfaction of current and potential needs in transportation, and improvement of its quality is the starting point for development of transport complex.

Dynamics of the main indicators of the development of the transport complex of Kazakhstan for 2010 - 2020 is shown in Table 1 below.

Table 1 - Main indicators of the transport complex of the Kazakhstan for 2010 – 2020

	Freight traffic, in total, million tons	Passenger traffic volume, in total, million people	Freight turnover, in total, billion tons/km	Passenger turnover, total, million pcm
2010	2 439.4	13 186.5	385.3	149 065.0
2011	2974.9	16 647.2	448.8	188 939.2
2012	3 231.8	18 484.6	478.0	213 035.7
2013	3 508.0	20 004.3	495.4	235 738.4
2014	3 749.8	21 281.2	554.9	246 958.5
2015	3 733.8	21 839.1	546.3	251 250.8
2016	3 729.2	22 332.8	518.6	266 784.2
2017	3 946.1	22 744.7	564.0	273 193.4
2018	4 103.8	23 013.0	609.5	281 484.1
2019	4 222.7	23 835.8	597.6	295 516.6
2020	3944.8	8396.4	584	108711
2020/2019	93	35	98	37
2020/2010	161	63	152	73

Note: Complied by the authors on the basis on the statistics Agency of the Republic of Kazakhstan

According to the data from table 1, for the last ten years the indicators for transport sector rose significantly: cargo transportation rose by 1.61 times, in other words on 1505 million tons, freight turnover by 1.55 times, i.e., by 198.7 billion dollars. tons/km. At the same time, we see that during the covid-19 pandemic, the indicators for passenger traffic by 0.63 times or -4790 mln per person, passenger turnover by 0.73 times or increase by - 40 354 mln PKM.

In 2020, the transport of the Republic of Kazakhstan transported 3944.8 million tons of cargo. The share of road transport in the total volume of transported goods amounted to 83% (3287 million tons), railways - 10% (402.3 million tons), pipeline - 6.5% (253.7 million tons), other types of transport (air transport, inland waterways, sea) - less than 1% .

Freight turnover during this period amounted to 597.6 billion tkm, of which 299.2 billion tkm (51%) on railways, 160 billion tkm (27%) on road transport, 124.2 billion tkm (21%) through pipeline, on transport, on other modes (inland water, air and sea) - 1%.

The main type of transport in the republic today are automobile's roads, there are 5823.6 million people or 69% of passengers who used the bus in 2020, and 2500.4 million people or 30% took a taxi. Due to the covid-19 pandemic, 13.2 million people or 0.2% used the services of the railway.

Accordingly, in the total volume of passenger turnover, most of it is occupied by a bus – 57758.2 million pkm or 53%, a taxi - 32971,4 million pkm (30%). The passenger turnover of railway and air transport is 9 163,3 million pkm, (8.4%) and 8525.2 million pkm. (7.8%), respectively.

The observed trend of steadily growing demand for transport services from the population and business indicates the most important socio-economic role of the

transport industry in the development of the Republic of Kazakhstan.

The state of the infrastructure also reflected to the international rankings of the country's competitiveness. The main assessment of the country's competitiveness is based on the results of the Global Competitiveness Index of the World Economic Forum (WEF GIC). In recent years, the rating of Kazakhstan on the "Infrastructure" factor is at around the same level, but if we take the period over 10 years, we can see a decrease in positions from 81 places in 2010 to 67 in 2019 (table 2).

Table 2 - Dynamics of the "Infrastructure" factor in the global competitiveness index of the world economic forum

Name of parameter	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Rating, place	81	82	67	62	62	58	63	68	69	67
Deviation, +/ –		+1	-15	-5	0	-4	+5	+5	+1	-2
Note: Complied by the authors on the basis https://www.weforum.org/reports										

According to the "Infrastructure" indicator, the ranking of Kazakhstan in the global competitiveness index in 2019, which includes all major types of transport, energy, utilities, and information infrastructure, placed at the 67th place out between 140 countries in the world.

The "Efficiency of Rail Transport" indicator shows the best result at 33 (+1) place. The poorest results for the infrastructure factor: Road quality (93), Air transport efficiency (89), Maritime transport efficiency (99), which shows low availability and high cost of services in these segments of the transport industry, and the fact that more than a third of regional and district roads are in unsatisfactory technical condition *(Akorda, 2013).*

Low ratings of results show that a significant part of the population and business at the regional level have problems with transport connection with social infrastructure facilities, markets, providers of government and service services.

Generally, World Bank Logistics Performance Index (LPI), Kazakhstan has improved its position, taking 71st place among 160 countries of the world in 2018, which is 6 positions higher compared to 2016 results, and thus, ahead of the Eurasian economic union: Russia (75), Uzbekistan (99), Belarus (103), Kyrgyzstan (108), Georgia (119), Turkmenistan (126) and Tajikistan (134).

There were two significant improvements in LPI - "Efficiency of the customs clearance process" (improved by 21 positions), and "Timeliness of delivery of goods" (up by 42 positions since 2016). However, in terms of Infrastructure Quality and Ease of Organization and Tracking of Goods in the Supply Chain, Kazakhstan's LPI rating decreased from 65th and 82nd places in 2016 to 81 and 84th places in 2018 respectively, thus getting into the “red zone "efficiency. Significant improvements have occurred in two LPI sectors -" Efficiency of the customs clearance process " (improved by 21 positions), and " Timeliness of delivery of goods" (up by 42 positions from 2016).

The development of the competitive transport industry defined by a combination of many external and internal factors, usually set by large transnational players and economies that are more advanced.

To identify the key environmental factors affecting the functioning and development of the transport industry in Kazakhstan, PESTLE analysis was used. The considered groups of factors and the assessment of their influence are summarized in Table 3 below.

Table 3 – PESTLE-analysis of the transport industry in Kazakhstan

Factor groups	Impact
(P) - Political 1. Regional integration and access to new	1. Further regional integration will contribute to the growth of freight traffic, requiring an increase in the capacity and service level of the transport system of Kazakhstan.

intergovernmental agreements. 2. International trade wars. 3. Growth in trade between Asia and Europe. 4. Further growth of e-commerce.	2. Sharp fluctuations in energy prices cause high volatility of the national currency and significant fluctuations in demand for services of the transport system of Kazakhstan, which leads to instability of the business environment and financial situation of many major players in the transport market. 3. For the transport system of Kazakhstan, which is an important link in the Asia-Europe regional transport corridor, this factor is both a challenge and an opportunity for further increasing transit freight flows simultaneously. 4. Due to the widespread availability of the Internet and electronic gadgets, a significant proportion of commercial transactions in the field of transport and logistics will be concluded and executed in electronic format.
(E) - Economic 5. Development of mega-corporations and transnational transport and logistics companies. 6. Market shift towards joint use of material and technical base. 7. Complicated forecasting of energy prices. 8. Changes in the behavior and expectations of consumers. 9. Population growth with special needs.	5. Growing competition in the transport and logistics services market will further develop the "economies of scale" through mergers and acquisitions of smaller players by larger ones. 6 Transport and logistics companies will expand cooperation in non-core areas in order to improve business efficiency. 7. The rapid introduction of "green technologies" and a decrease in the consumption of petroleum products will make significant changes in the volume and structure of supply and demand for energy carriers and the resources and materials created from them, which will lead to an increase in the unpredictability of fluctuations in prices and exchange rates. 8. Growing consumer expectations regarding the reliability and speed of cargo delivery and travel create new challenges both for transport and logistics companies and for owners of transport infrastructure. 9. With increasing life expectancy, the share of the older population, including the number of persons with disabilities who need specialized transport services, increases. This will require expanding the scope of specialized transport solutions and technologies.
(S) - Social 10. An acute shortage of specialized personnel in knowledge-intensive and high-tech areas of the transport industry. 11. Transport terrorism. 12. Development of a technological base for the widespread integration of advanced achievements of science and technology.	10. The shortage of qualified personnel, along with the lack of educational programs per se in a number of new competencies, is a blocking factor for the implementation of digital innovations and increasing labor productivity. 11. Regional terrorist activity with the observed tendency to approach the borders of the Central Asian conglomerate requires continuous improvement of the security system for transport and logistics activities, which is a very vulnerable area for potential terrorist attacks. 12. The widespread dissemination of a modern technological base will lead to a rapid growth in the introduction of ultra-innovative solutions to ensure the operation of the transport and logistics complex.
(T) - Technological 13. Growth in demand for logistics infrastructure. 14. Transition to green technologies.	13. It is anticipated that demand for the development of logistics infrastructure along the China-Europe international trade route to continue to grow. 14. The global trend of transition to green technologies determines the inevitable transition of the transport and logistics complex to the use of more environmentally friendly and safe solutions and technologies ("green logistics").
(L) - Legal 15. The limiting influence of legislation.	15. The integration of new information and telecommunication technologies based on access to personal data may encounter restrictions imposed by legislation on the protection of personal data.
(E) - Ecological	16. Global climate change is changing the historical background of

16. Global climate change. 17. Depletion of natural resources.	the weather, which will change the usual conditions of the various transport industries and can cause disruptions to established schedules and supply chains due to weather conditions. 17. The influence of this factor will be expressed in a reduction in the availability of familiar natural resources used in the production of vehicles, equipment, fuel, etc., which will lead to an increase in market prices for such resources and will demand a widespread transition to the utilization and processing of materials for secondary use (recycling).
Note: State program for the development of transport infrastructure for 2020-2025 (World bank, 2018).	

Discussion and conclusions

The main tasks i the transport industry today are to increase the competitiveness of carriers, reduce transport insufficiency and transport costs.

In order to overcome the lag in infrastructure development, three main problems need to be solved:

1. To increase the availability of the road network. To date, the growth rate of road construction not observed in recent years, while the number of vehicles has grown annually by an average of 4.5%.

2. Bridge the investment gap. In Kazakhstan, the government is practically the only source of financing for transport infrastructure, there is a shortage of investments. In order to bridge the investment gap, it is necessary to double the volume of capital investments.

3. Create conditions for private sector participation. Kazakhstan's private business is not sufficiently involved in the planning, financing, and management of transport infrastructure.

The development of the entire complex of transport infrastructure cannot rest on the shoulders of the government. Since the socio-economic efficiency of projects in the field of transport is much higher than the financial benefits of the investors.

The mechanisms for attracting investments to the implementation of transport infrastructure projects are very important, since PPP opens access to private capital for the public sector to create and modernize transport infrastructure facilities. PPP can accelerate the implementation of projects by providing the government with the initial investments necessary for the construction of a large infrastructure projects.

By attracting private investors in the field of road construction, the government solves a number of main tasks:

- The quality of design and construction works transport services are increasing since the operation of the PPP facility will be carried out by a private partner in the long term;

- Budget savings occur during the operation of transport infrastructure facilities due to the transfer of operating costs to a private investor, while retaining ownership of these facilities;

- Unproductive costs and expenses are reduced, construction time is reduced, advanced modern technologies are involved;

- Risks are reduced, since using the PPP mechanism, the risks of the project and the responsibility of the parties are evenly distributed between the state and the private partner;

- PPP projects that are significant and necessary for infrastructure development are effectively implemented in the short term, since the payments of significant capital expenditures by the state for these projects are actually "stretched" over the long term.

To sum up, we can draw the following conclusions:

- Kazakhstan's accession to intergovernmental free trade agreements will require timely adaptation and harmonization of internal legislation, as well as mediation of the technological level of infrastructure to correspond the requirements of such agreements;

- it is necessary to create a technically sufficient, technologically equipped and service-competitive transport infrastructure in accordance with international standards, along with the constant simplification of internal procedures and the elimination of non-physical barriers to trade and transit;

- expectations and preferences of consumers of transport - logistics services, including road users, railway shippers, transit operators and transport, and logistics

companies, should become for Kazakhstan the main strategic driver for the development of transport infrastructure and services;

- to fully participate in the competition for attracting transit cargo flows, the transport-logistics complex of Kazakhstan must be developed ahead of schedule, including the creation of a logistics infrastructure of sufficient capacity (carrying capacity) and the providing with high-quality services.

- to minimize damage from limiting the operation of rolling stock and technologies that do not meet global environmental trends, Kazakhstan must timely harmonize national legislation and technical regulations in order to ensure the systematic compliance of national operators with new requirements in the sphere of emission reduction and environmental protection. An important task is to also the introduce "green technologies" at the stage of implementation of projects for the construction of transport infrastructure.

The data above indicate the need to improve the transport infrastructure development policy and develop more efficient mechanisms for its implementation.

The adopted State Program of Infrastructure Development "Nurly Zhol" for 2020-2025 is aimed to create a transport infrastructure that will be efficient, competitive, and accessible to the population, will increase mobility, labor productivity and quality of life. Within the framework of the Program, until 2025, it is planned to implement 112 infrastructure projects for a total amount of 5.5 trillion tenge

In a state of crisis transport construction can drive economic growth. The implementation of projects in the field of transport infrastructure will also have a stimulating effect on the economy of the regions, contributing to the manifestation of complex multiplicative effects through the implementation of investment projects in related industries and the creation of added value by reducing the cost of transport services; strengthening business activity, increasing the mobility of labor resources and economic entities; the formation of new markets and industries related to the introduction of innovations in the transport sector of the economy. But the government apparatus is not always able to carry out the development and implementation of such projects. It is necessary to attract private capital to help the government to implement investment projects for the grows of transport infrastructure.

Therefore, current scientific research on the problems of a balanced policy of private investment in traditionally socially significant sectors of social and industrial infrastructure, which include highways, is not only relevant for Kazakhstan, but also highlights the structure of economic research in general.

REFERENCES

OECD. (2019). *Sustainable Infrastructure for Low-Carbon Development in Central Asia and the Caucasus*. Hotspot Analysis and Needs Assessment. https://doi.org/10.1787/a8bff43d-en

World Economic Forum. (2020). The Global Competitiveness Report. https://www.weforum.org/reports

World bank. (2018). Connecting to Compete 2018. Trade Logistics in the Global Economy. The Logistics Performance Index and Its Indicators. //https://lpi.worldbank.org/domestic

Department of Transport and Infrastructure. Eurasian Economic Commission. (2019). Analysis of existing international transport corridors passing through the territories of the EAEU member States. http://www.eurasiancommission.org. (In Russian).

Dalenov, R. (2019). *Forecast of socio-economic development for 2020-2024.* https://www.gov.kz/memleket/entities/economy/press/news/details/prognoz-socialno-ekonomicheskogo-razvitiya-na-2020-2024-gody-vvp-na-dushu-naseleniya-uvelichitsya-do-143-tys?lang=ru. (In Russian).

Official website of the Ministry of National Economy of the Republic of Kazakhstan. www.stat.gov.kz

Nazarbayev, N. (2014). *Strategy "Kazakhstan's way - 2050: Common goal, common interests, common future.* https://adilet.zan.kz/rus/docs/K1400002014. (In Russian).

Government of the Republic of Kazakhstan. (2019). *On approval of the State program of infrastructure development "Nurly Zhol" for 2020 – 2025.* https://adilet.zan.kz/rus/docs/P1900001055. (In Russian).

Akorda. (2013). *Expanded meeting of the Government with participation of the Head of State "Results of 2012 and implementation of the Strategy-2050".* https://www.akorda.kz/. (In Russian).

ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДА КӨЛІК ИНФРАҚҰРЫЛЫНЫҢ ҚАЗІРГІ ЖАҒДАЙЫ

Анар АЙТКАЛИЕВА, *докторант, Қазақ Экономика, Қаржы және Халықаралық сауда университеті, Нұр-Сұлтан, Қазақстан, https://orcid.org/0000-0002-1823-1048, Scopus ID 57191404980, anar.aitkaliyeva@mail.ru*

Алма ГАЛИЕВА, *э.ғ.д., профессор, Қазақ Экономика, Қаржы және Халықаралық Сауда Университетінің «Экономика» кафедрасының профессоры, Нұр-Сұлтан, Қазақстан, https://orcid.org/0000-0002-8934-5667, ScopusID 57191405407, alma_galiyeva@mail.ru*

Айгуль ТОКСАНОВА, *э.ғ.д., профессор, Қазақ Экономика, Қаржы және Халықаралық Сауда Университетінің «Экономика» кафедрасының профессоры, Нұр-Сұлтан, Қазақстан, https://orcid.org/0000-0001-5495-7180, ScopusID 57191414215, taigul1@mail.ru*

СОВРЕМЕННОЕ СОСТОЯНИЕ ТРАНСПОРТНОЙ ИНФРАСТРУКТУРЫ В РЕСПУБЛИКЕ КАЗАХСТАН

Анар АЙТКАЛИЕВА, *докторант, Казахский университет Экономики, Финансов и Международной торговли, Нур-Султан, Казахстан, https://orcid.org/0000-0002-1823-1048, Scopus ID 57191404980, anar.aitkaliyeva@mail.ru*

Алма ГАЛИЕВА, *д.э.н., профессор кафедры «Экономика» Казахского университета Экономики, Финансов и Международной торговли, Нур-Султан, Казахстан, https://orcid.org/0000-0002-8934-5667, ScopusID 57191405407, alma_galiyeva@mail.ru*

Айгуль ТОКСАНОВА, *д.э.н., профессор кафедры «Экономика» Казахского университета Экономики, Финансов и Международной торговли, Нур-Султан, Казахстан, https://orcid.org/0000-0001-5495-7180, ScopusID 57191414215, taigul1@mail.ru*