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Tendencies, expectations of shippers and solutions of operators in the transport market of the Republic of Kazakhstan

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ABSTRACT The article considers the main stages of development of the transport and logistics market, analyses changes in the supply chain and market trends, reveals their impact on acceleration of digitalization processes, reveals measures to reform the railway industry, noted the development of the new Eurasian logistics infrastructure, summarized the results of Kazakhstan's foreign trade for 2022, showed opportunities for the development of alternative transport corridors and infrastructure facilities, as well as directions of private investments of residents of the economies of Kazakhstan and neighboring states (China, Kyrgyzstan, Uzbekistan) in the development of its transport infrastructure and logistics, foresight for business for the next 10 years is given.

KEYWORDS: development; transport; logistics; market; supply chain; digitalization; reform; railway; infrastructure; trade; transport corridor; investment

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Научная статья

Маркетинговые исследования и анализ рынка транспортно-логистических услуг в Республике Казахстан

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АННОТАЦИЯ Рассмотрены основные этапы развития транспортно-логистического рынка, проанализированы изменения в цепочке поставок и рыночные тенденции, раскрыто их влияние на ускорение процессов цифровизации. Показаны мероприятия по реформированию железнодорожной отрасли, отмечено развитие новой евразийской логистической инфраструктуры, приведены итоги внешней торговли Казахстана за 2022 г. Приведены возможности развития альтернативных транспортных коридоров и инфраструктурных объектов, а также направления частных инвестиций резидентов экономик Казахстана и сопредельных государств (Китай, Кыргызстан, Узбекистан) в развитии своей транспортной инфраструктуры и логистики, дан форсайт-прогноз для бизнеса на предстоящие 10 лет.

КЛЮЧЕВЫЕ СЛОВА: развитие; транспорт; логистика; рынок; цепочки поставок; цифровизация; реформирование; железная дорога; инфраструктура; торговля; транспортный коридор; инвестиции

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INTRODUCTION

The Asian region now has significant human and natural resources. Of the world's 30 largest cities, 21 are in Asia. It is expected that of the estimated 30 trillion dollars of growth in middle-class consumption by 2030, only one trillion dollars will go to the Western economies. At the same time, the future of Asia itself depends on the collective will to strengthen dialogue among the cultures, traditions and world views of the peoples of the region.

CARGO MARKET

The Republic of Kazakhstan (Kazakhstan), which is a part of the world market of logistics services (RLU), has come a long way in the last 30 years. From *Fig. 1*, which presents the main stages of development of the transport and logistics market, it follows that during the period 1991–2022, this market has developed rapidly.

This was due to the following circumstances:

Firstly, the state created conditions for the development of a competitive environment and private initiative in the segment of operating freight wagons. Freight forwarding, customs brokerage companies began to appear actively. In the middle of the 2000s there was a boom on the wagon companies. Zh.-d. the administrations of Russia, Ukraine and Kazakhstan have transferred the fleet of MEAs wagons to the ATP park. There was a pool of private investors who invested in their own cars. Today in Kazakhstan about 135 thousand private cars (more than 75 % in the structure of the car park of the country). They are owned and operated by dozens of owners — from large to small companies, private individuals. A truly highly competitive RLU has appeared in this segment. Tens of thousands of new jobs have been created.

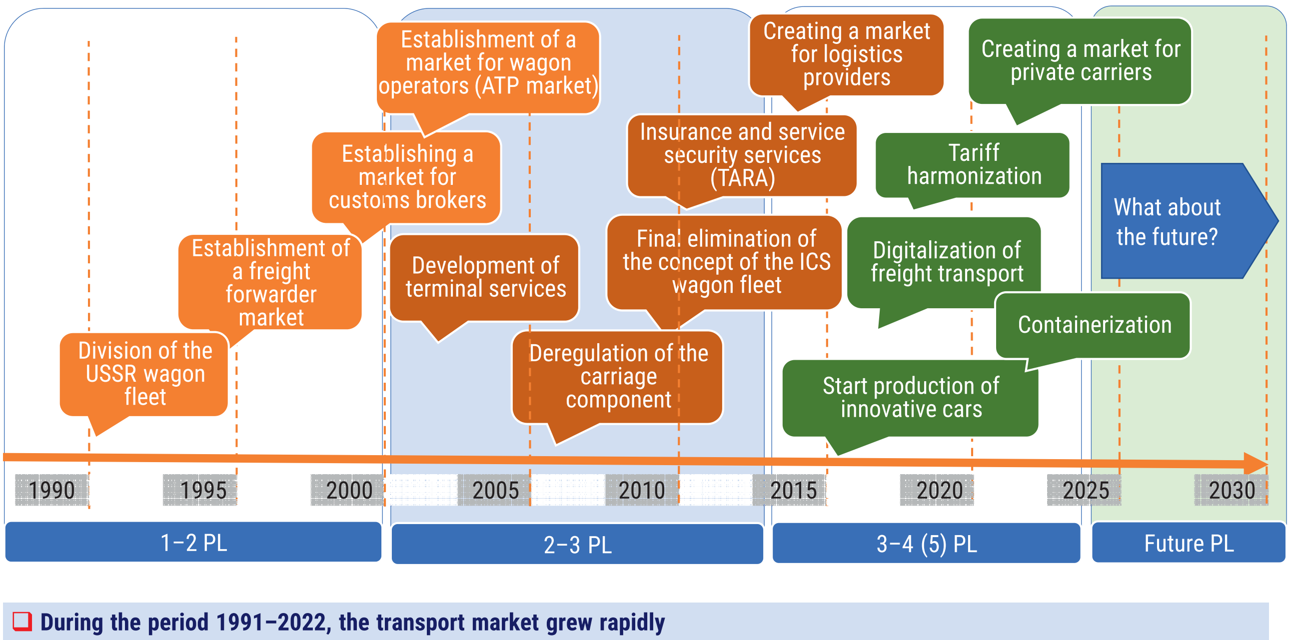

Fig. 1. The main stages of development of the transport and logistics market

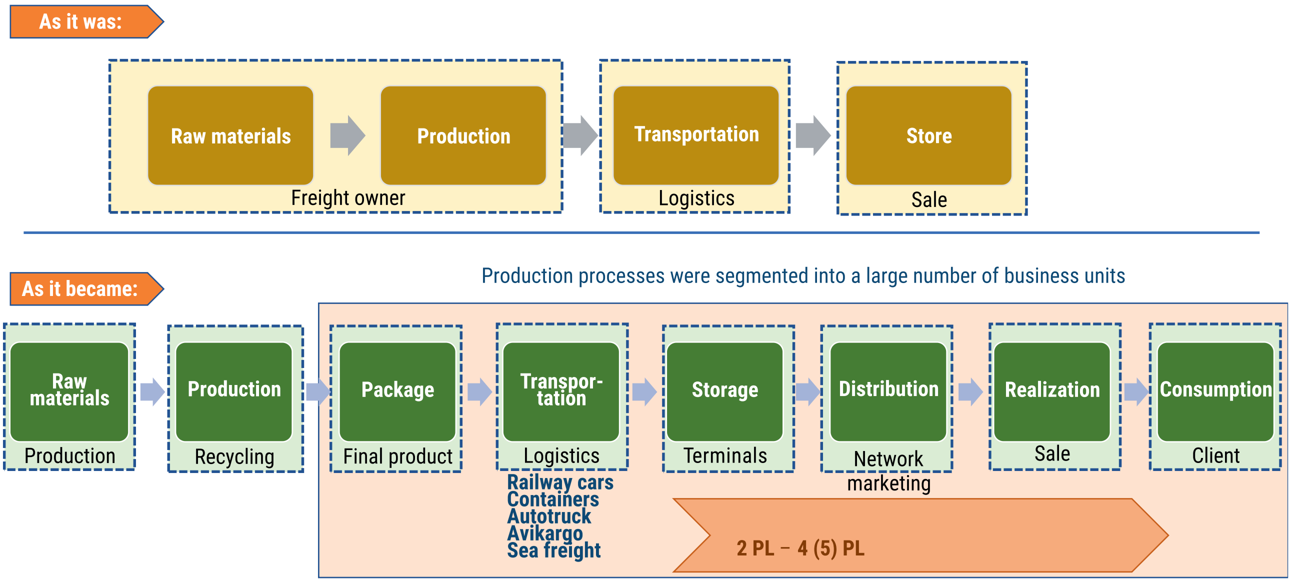

Fig. 2. Developments in logistics (supply chains)

Secondly, amendments and additions were made to the Legal Acts regulating the work of railway (Zh.-d.) transport, which opened up opportunities for access to the main railway. Network of private cargo carriers and promotion of competition. For example, in May 2018 in Kazakhstan, two private carriers began transporting goods using their own locomotives, along with the National Cargo Carrier "Cossack Temir Zholy". At that time, private carriers were completely new participants of RLU.

Thirdly, digitalization of logistics has been actively developed, issues of containerization have moved to a more active stage, and innovative direction has started to develop.

In the USSR supply chains were quite simple (see *Fig. 2*). Logistics was not considered in conjunction with the sale of goods and services, and the associated and indirect costs were not considered.

Since the 1990s, logistics has been integrated into all industries and economies. Production processes have been segmented and detailed into smaller business processes. This period is characterized by the search for new solutions in the field of reducing costs (logistics costs) in production, distribution, sales and delivery. Modern automated warehousing complexes have been formed and containerization of freight transport has been actively used.

The application of uniform packaging and packaging standards in distribution logistics systems has had a significant economic impact.

The functions of enterprises and partners in logistics business are segmented into a single logistics chain (i.e.: procurement — production — distribution and sale).

The IT revolution and the introduction of personal computers have also influenced the development of a new logistics vector. State-of-the-art software enabled the use of computers ranging from the procurement process to the distribution and sale of the finished product.

The volume of logistics services transferred to outsourcing 2.3PL to operators and to operators 4–5PL is increasing.

And it is expected that this trend of doing business will only gain momentum in the future.

Aware of the enormous contribution of logistics to the profitability of business processes, business owners increasingly have to turn to logistics experts.

This shows good prospects for the development of logistics in general.

In recent years, the construction of high-tech warehouses of the full cycle has been growing, order in the transport sector has been brought to the legislative level, and programmes for automation and optimization of logistics processes have been produced.

Customers are provided with quality service and optimization of their logistics processes.

As we see from the history of the formation of transport logistics, this industry is actively developing and growing, and large companies no longer represent their business without the help of a logistics operator.

International companies and large firms separate special services, departments, departments or logistics sectors.

The main function of most companies was to reduce the cost of goods and to use raw materials, semi-finished products and components more efficiently.

CHANGES IN THE SUPPLY CHAIN HAVE GIVEN IMPETUS TO THE DEVELOPMENT OF LOGISTICS

The growing needs of the business environment led to the need to create and develop service companies that provide a full range of services from the initial consignor to the final recipient.

On the radar other than aviation, water, etc. Project logistics and project management, multimodal transport involving two or more modes of transport have emerged.

Thus, not only the technological but also the commercial and financial role of radar transport has been recognized.

There are new professions in demand:

- IT operators in logistics;
- dispatchers — aggregators;
- developers and technologists of logistics solutions;
- coordinators;
- integrators;
- suppliers of all kinds etc, which creates new jobs.

The development of world integration processes has contributed to the creation and development of intermodal and multimodal logistics companies.

A new paradigm of international trade has been established, migration has increased, and there has been an exponential increase in freight turnover, vehicle fleet and world transport and logistics infrastructure. The business level of the transport and logistics complex has increased. It develops as a result of the growth of production and consumption, while giving new impulses to the integration of production processes, distribution, marketing and delivery of products, their logistics, which allowed planning and delivery from anywhere in the world.

Manual processing of goods and documents predominated in all the authorities involved:

- customs clearance;
- phytosanitary design;
- registration of transport documents;
- registration of the origin of the goods;
- payment of the tariff and related services;
- insurance of goods etc.

The current world trends have influenced the acceleration of digitalization processes, electronic document circulation has been introduced everywhere.

In the beginning there were the usual simple digital solutions, then went more extended and deeper software products.

Electronic transport is now used instead of traditional paper transport documents. The software system is good because, sitting in the office at the workplace, any employee can submit documents for approval and track their progress through a single electronic database.

If previously, when approving letters, protocols, telegrams and other documents had to go through a series of offices until they reach the table of the station chief or other structural unit, now this procedure has been simplified and is carried out at an accelerated pace, without delay.

Due to this, the consumer of transport and logistics services has the opportunity to use the high speed of processing of goods and accompanying documents, mobility and transparency of their preparation, registration and passage.

There are many digital platforms and services that allow providing services to clients in one click.

Users of these programs can access applications from any device, whether mobile phone or computer.

The most important thing is to eliminate human contact as much as possible.

Various digital platforms created by different tools between RLU actors in different countries are being integrated.

In addition, the pandemic has changed a lot in the logistics space, as a result of the trend of digitalization (digitalization) has only intensified.

The share of e-commerce and marketplaces as well as automation and robotization of warehouse operations can be noted.

Further development of logistics contributes to creation of amazing and useful digital developments.

In the period 2000–2020, the Government of Kazakhstan has carried out several programs of reform of railways.

In general, the reform of railways was aimed at improving the efficiency and quality of services through liberalization, private initiative and investment.

The Government of the Republic of Kazakhstan has adapted the approach adopted in the European Union, consisting of vertical division. infrastructure and transportation, development of competition.

During this time, a relevant legal and regulatory framework has been established for carrying out the fundamental changes reflected in the policy documents on the reform. industry, corporate strategy and legislation, including organizational separation of transport activities and infrastructure.

Implemented measures:

— amendments and additions to international treaties on the functioning of transport in the EEA;

— harmonization of tariffs for the carriage of goods by type of communication;

— large-scale investment program for renewal of rolling stock and construction and modernization of infrastructure;

— initiation of work on introduction of a new mechanism of subsidy of losses of carriers, carrying out the following passenger transport on socially significant inter-regional communications;

— development of the industry of transport engineering;

— intensive development of logistics and multimodal transit transport.

In his recent address, the President of the Republic of Kazakhstan K-J. K. Tokayev stressed that the development of the new Eurasian logistics infrastructure is one of the important priorities.

The Head of State noted the importance of joint development with the participating countries of international transport corridors (MTC) in terms of ensuring freedom of transit of goods, creation of new and modernization of existing MTC.

Taking into account the tasks set by the state, the further business strategy envisages growth in the segment of transit and multimodal transport and logistics services through:

- development of new competencies and integration of services into a single logistics service;
- entering new segments of the radar and offering new transport "products";
- modernization of transport infrastructure; establishment of the internal and external TLC network;
- development of the dry cargo fleet;
- forming partnerships and alliances;
- the institutional development of ITC.

In order to ensure the full development of the transport and transit potential of the country in accordance with the instruction of the Head of State, the sectoral Ministry, together with business, is developing a concept for the development of transport and logistics potential of the country until 2030, which will form a new conceptual framework for the development of transport and logistics complex, taking into account the growing requirements for competitiveness and quality of services.

Foreign trade conditions were favourable for Kazakhstan in 2022. The main markets for Kazakh products are China, Italy and Russia.

Merchandise exports rose by 53 % to $48.9 bn, while imports grew by 14 % y/y to $25.4 bn.

Total turnover rose by 37 % to over $74 billion.

There was a significant increase in deliveries to the EU and China.

More than half of Kazakhstan's output was exported, with processed goods accounting for one third of total exports.

The number of countries receiving Kazakhstan's exports has increased, i.e. the number of commodity markets has increased from 112 to 118.

Positive trade results are directly related to the current expectations of shippers.

The main criteria are traditionally (see *Fig. 3*):

- availability of services;
- customer focus;
- contractual urgency of delivery;
- reliability of services (punctuality, safety and security);
- flexible prices according to contract quality;
- additional services.

Changes in logistics have given rise to various business proposals. Practically all leading enterprises and

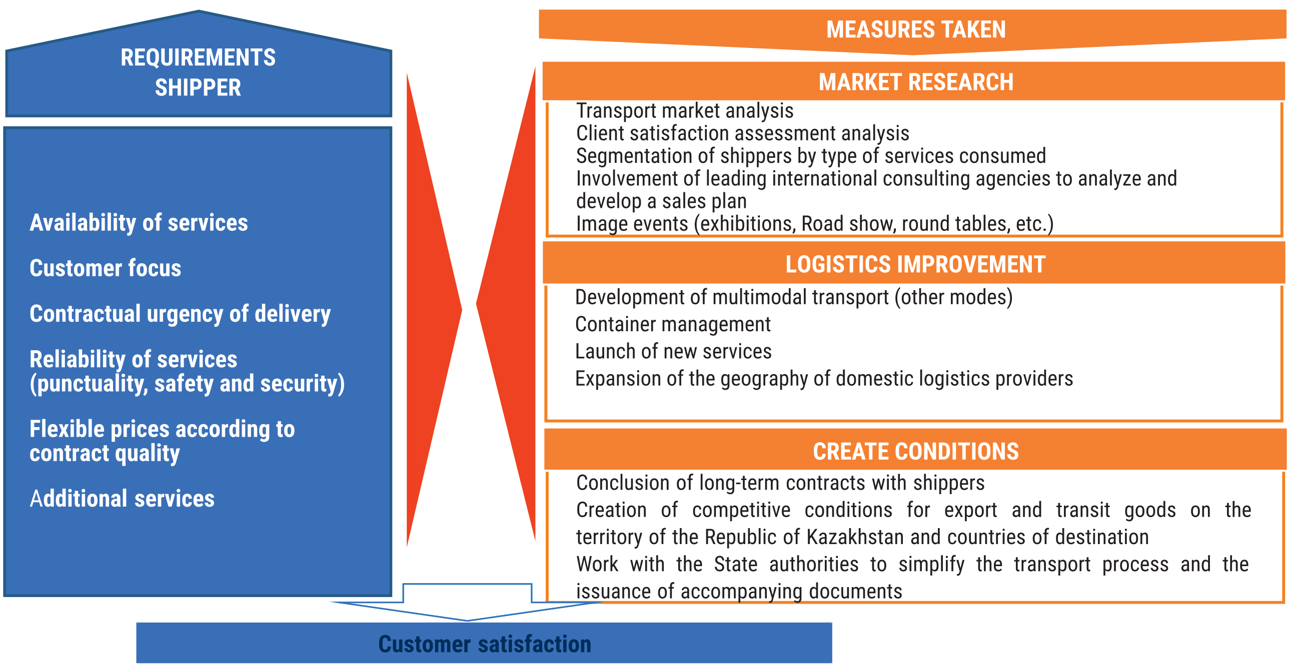

Fig. 3. Current expectations of shippers and measures taken

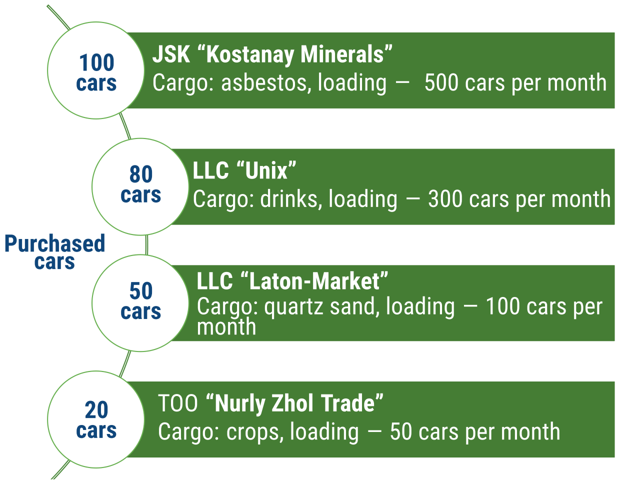

Fig. 4. Examples of realized cases

companies on the world RLU concentrate their resources on the main activities — this is the question of shippers. Each shipper strives to reduce the cost of goods and services, to ensure better quality, to increase competitiveness on the radar. And most importantly — in time to remove goods or raw materials.

In accordance with the current rules and requirements of RLU, complex logistics services are the most advantageous for customers.

Almost all of us faced with a shortage of cars, especially this is acutely felt during the "seasons" of mass loading. The main leitmotif of exporters become "wagons"!

And the expression "client is always right" is as relevant as ever!

A case was developed — the purchase of freight cars for private investment under long-term offtaker contracts for transportation with shippers.

As a result, all three parties get their benefits: investor — dividends, operator — wagons, shipper — timely export of goods.

Within the Association of Entrepreneurs "KIT" several cases were realized, which are presented in *Fig. 4*.

The implementation of these cases made it possible:

- to attract private investment for the purchase of own car fleet;
- offer exporters a service aimed at minimizing technological and transport costs;
- to apply a complex of transport and logistics services to Kazakh enterprises taking into account their specific features of production processes;
- increase the volume of cargo exports without additional costs;
- create new jobs of logistics competence;
- Increase tax revenue from freight transport.

At present, the Eurasian space has an extensive system of transport communication and is connected to all major MTC for access to the world radar (see *Fig. 5*).

FIVE MTCS HAVE BEEN ESTABLISHED AND ARE OPERATIONAL

This is the Northern Corridor (the route connects Western Europe with China, the Korean Peninsula and Japan. through which container trains pass through Kazakhstan in the direction of China – Europe.

The Central Asian corridor — provides transit transport between the Russian Federation and the countries of Central Asia (the route connects the countries of Central Asia with North – West Europe. From the side of Kazakhstan it is the section Saryagash – Arys – Kandyagash – Ozinki).

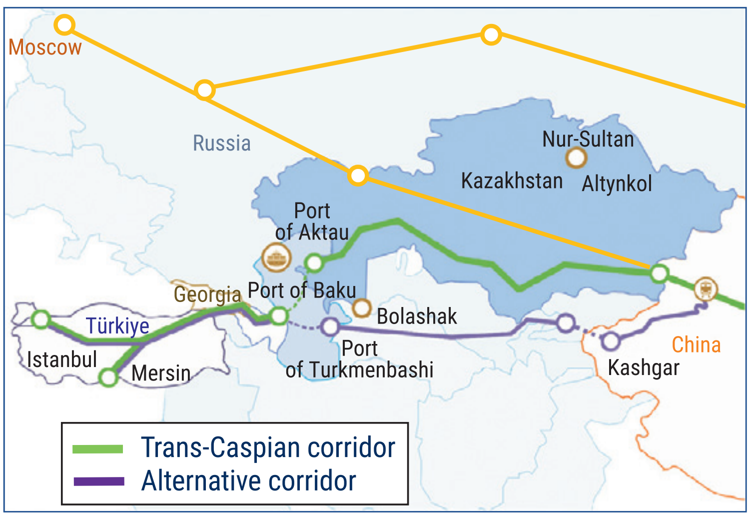

Fig. 5. Trans-Caspian and alternative transport corridors

South Corridor. This route connects China and the countries of South – East Asia with the countries of Central Asia and the Persian Gulf (the route connects the countries of China and the countries of South – East Asia through the countries of Central Asia, Iran, Turkey. Kazakhstan is the section Altynkol – Almaty – Shu – Arys – Saryagash).

North – South connects the Russian Federation with Iran, the Gulf countries, India. In addition, the Kazakhstan – Turkmenistan – Iran route (east North – South branch) currently connects China directly through us with Iran (route from Saint Petersburg to the port of Mumbai. From the Kazakhstan side — these are the sections Iletsk/Osinki – Beine/Ozen – Bolashak).

The TRACECA corridor, in which Kazakhstan is developing the Trans-Caspian International Transport Route (TMM) (the route connects Eastern Europe with Central Asia and China. From the side of Kazakhstan, this section is Altynkol/Dostyk – Aktau/Kuryk).

It is clear that, over the next 5 to 10 years, private investment will focus on:

- for the construction of terminals;
- for the purchase of rolling stock;
- the introduction of new technologies, further digitalization of the transport of goods and passengers;
- the development of transport and logistics business;
- for the construction of dry cargo and ferries.

For example, in order to further increase the transit potential of the Trans-Caspian route Kazakhstan plans to build a “container hub” in the port of Aktau.

The project will involve global logistics companies such as MAERSK, COSCO, PSA International.

In the port of Kuryk, the Novoshima grain company is building a grain terminal (capacity of 1 mln. tons, worth about 17 mln. dollars — private investment). Completion is planned for 2025.

“Semurg Invest” plans to build a multifunctional terminal (cost — 320 million dollars, private investments). Completion is planned for 2025.

Also, due to the shortage of ferry fleets in the Caspian Sea, Kazakhstan plans to build its own ferry boats in the amount of 10 units.

For reference:

Total merchant fleet — 153 ships.

Kazakhstan — 10 units, including on the Caspian Sea — 8 ships (including: 5 tankers, 2 dry cargo, 1 container ship), on the Black Sea 2 dry cargo.

Azerbaijan — 52 units (35 tankers, 17 ferries).

Iran — 35 units (dry cargo).

Russia — 46 units (5 tankers, 41 dry cargo).

Turkmenistan — 10 units (8 tankers, 2 ferries).

The share of Kazakhstan on the Caspian Sea is 39 %.

In addition, in order to upgrade the rolling stock until 2025, it is planned to buy semi-cars, platform cars, trunk locomotives.

Today, work is actively carried out on the modernization of transport infrastructure on the section “Dostyk – Moyinty”, which is part of the transit corridor China – Europe;

- building bypass. Almaty line, which will unload the Almaty junction by 30 % and reduce the delivery time to 24 hours;
- construction of the new “Darbaz – Maktaral” line, which will give impetus to the development of the Central Asian corridor.

Work is underway to establish cooperation with the Singapore company “PSA Group”, which offers to integrate their ready-made information systems into freight logistics.

For reference: The integration of information systems will serve as an additional impetus to the development of MTK, as the global PSA network covers more than 50 offices in 26 countries. The Group’s portfolio includes more than 60 deep-sea, i.e. inland terminals.

Of course, it is worth noting that neighboring countries also have an investment policy aimed at the development of their transport infrastructure and logistics.

For example, China, Kyrgyzstan and Uzbekistan are considering the construction of an alternative route to the Caspian Sea, which will facilitate the development of transport in the direction of Turkmenistan, the countries of the Caucasus, Turkey and Iran. Alternative Corridor (cf. *Fig. 5*) is actively supported by the Administrations and State Bodies of Uzbekistan, Azerbaijan and Georgia.

Iran is firmly committed to restoring the Herat – Khaf section, which will connect Afghanistan and Iran. Iran is committed to the restoration of this section.

Completion of the construction will further develop trade links with Afghanistan’s most successful city of Herat and create a corridor to the Middle East, as well as through the Iranian port of Chakhbehar to India, Europe and South-East Asia.

The business outlook for the next 10 years shows that the main trends for the next 10 years are:

1) logistics will become fully electronic (business environment), the emphasis will be on the environmental friendliness of transport;

2) technology and innovation imports will quadruple;

3) exports of goods will double, 40 % of the exports will be finished products;

4) the growth of human capital and the need for educational purposes in logistics;

5) monetization of research and development in logistics;

6) the inflow of foreign capital will quadruple;

7) trade in food products will increase by a factor of 1.5 to 2, which is related to the organization of food security of Asian countries.

CONCLUSION

At present, the key task of railway transport is to maintain current customers thanks to the reliability and speed of traffic. The main direction, as throughout 2022, remains the development of new points of activity and diversification of complexes of logistics services, which will allow to offset the effects of reduced segments of activity, using developments published in sources [1–7].

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