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**CURRENT STATE AND PROBLEMS OF DEVELOPMENT  
OF ROAD CARGO TRANSPORTATION IN THE REPUBLIC OF BELARUS**

*Kachurka P.A., Kachurka O.A.*

Abstract. The analysis of the current state of road freight transportation in the Republic of Belarus is carried out. The factors that have a negative impact on the development of road freight transportation are considered. The conclusion is made about the measures necessary to minimize the influence of these factors.

1 Introduction

Transport logistics occupies a leading place in the logistics system of the Republic of Belarus. This is predetermined by the geographic location of the republic as a landlocked state, as well as by the advantages of road transport, which is a fairly optimal and effective means of delivery and distribution of goods both in domestic traffic and on international routes.

Highways are the most important element of the transport system of the state. The territory of Belarus is crossed by two trans-European transport corridors, defined according to the international classification under number II (West-East) and under IX (North-South) with a branch of the IXb. Currently, there are 383 petrol stations, 393 food outlets, 90 service stations and 53 roadside hotels on the republican highways. The length of the road network in the Republic of Belarus is 103.7 thousand km, including 74.3 thousand km of paved roads (see Figure 1) [1].

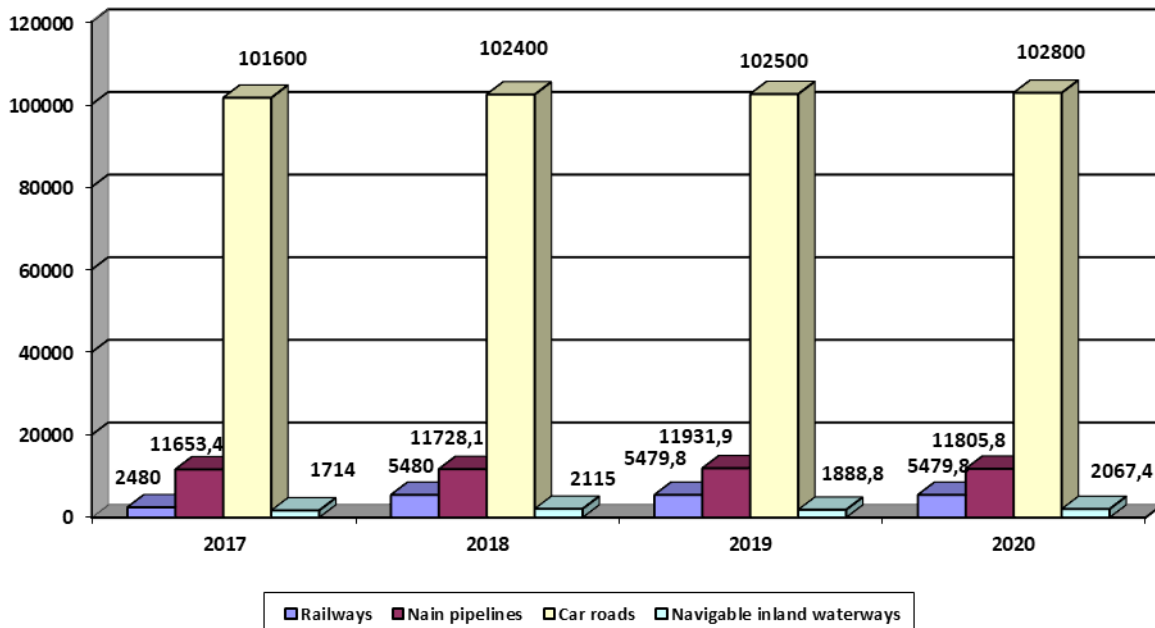


Figure 1 – Length of transport routes (thousand km)

The level of transport service depends not only on the number of transport organizations, but also on the indicator of the density of communication routes, provided in the Figure 2, which characterizes the provision of the territory with transport routes and depends on the length of communication routes, their throughput and carrying capacity, configuration, placement of transport lines and other factors. Obviously the more developed the communication routes are this indicator is higher. This histogram reflects the density of communication lines in the Republic of Belarus in recent years. The units of measure are kilometers per 1000 square kilometers of land area.

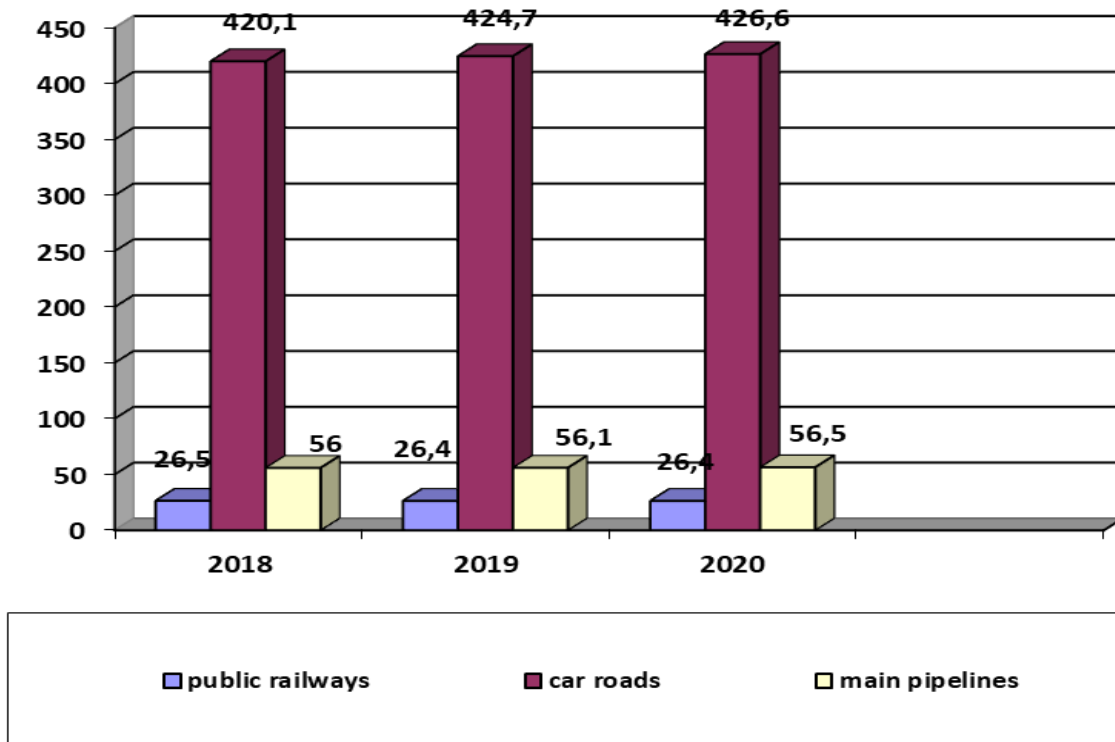


Figure 2 – Comparative characteristics of the density of communication lines (in km per 1000 km<sup>2</sup>)

In the Republic of Belarus, the density of the railway network is quite high and amounts to 26.4 km per 1000 km<sup>2</sup> of territory. However, the country also has a high degree of unevenness in the distribution of the transport network across regions. So, if in the Brest region the density of the railway network is over 33 km per 1000 km<sup>2</sup>, then in the Minsk and Gomel regions - only 22 km. At the same time, only 40% of urban settlements of the republic have access to railway transport, and this figure ranges from 21% in the Grodno region to 50% in the Mogilev region.

The average republican density of highways is also quite high (424.7 kilometers per 1000 square kilometers), however, the differentiation in the provision of a transport network of highways is also very significant, since in a number of regions the density of roads is below 150 km per 1000 km<sup>2</sup>.

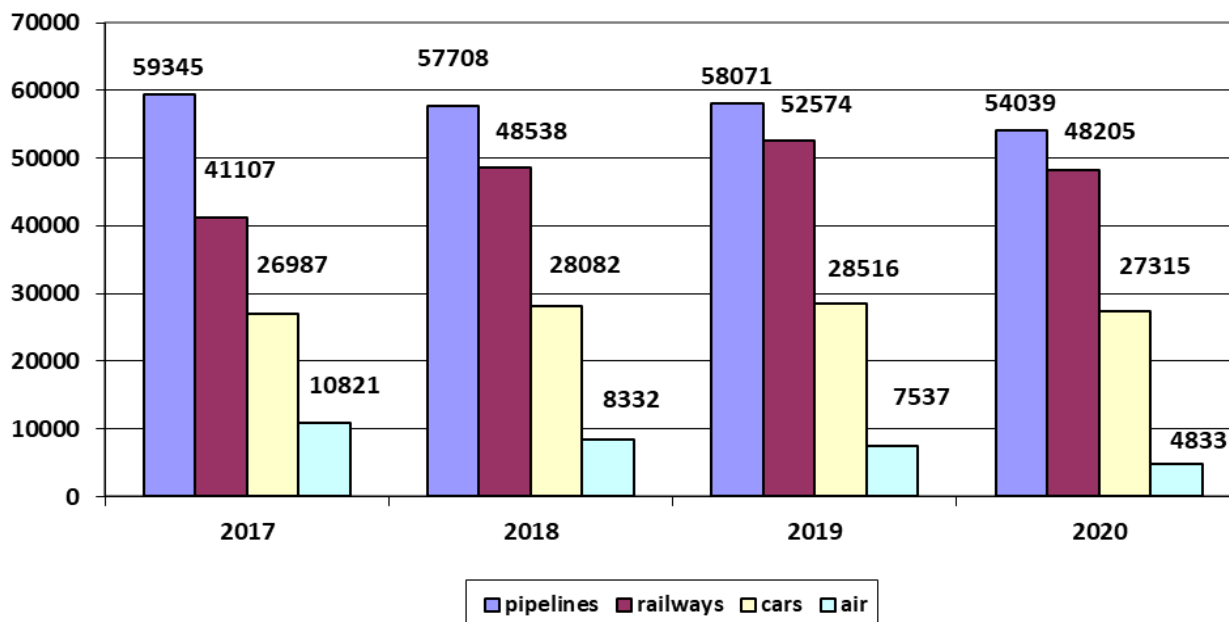


Figure 3 – Freight turnover by modes of transport for 2017–2020 (in ton-kilometers)

In 2020, compared to 2019, there was a decrease in the total volume of freight traffic, primarily due to the unstable epidemiological situation. In 2019, compared to 2016, the share of rail transport in the total freight turnover increased by 2,314 ton-kilometers, the share of pipeline transport decreased by 8,035 ton-kilometers. At the same time, the share of road transport in freight turnover increased from 16023 in 2016 to 28516 in 2019.

#### 2 Problems in cargo transportation

Road transport is considered the most mobile and most convenient type of cargo transportation, primarily for the transportation of small volumes of goods over short distances. Provides the opportunity to deliver cargo directly to the address, no need to reload cargo from a car to another mode of transport. On the other hand, this type of transport is quite expensive and the least environmentally friendly, and also has a relatively low carrying capacity, high costs for fuel and lubricants and maintenance [2]. Currently, over 36240 business entities are registered in the Republic of Belarus with a license to carry out activities in the field of road transport [3].

The main problems of cargo transportation in the Republic of Belarus are:

1) the condition of highways. Due to the poor condition of the road, the throughput is sharply reduced and, as a result, the carrier incurs temporary losses plus increased wear and tear of transport. Due to the delay in the delivery of perishable goods he incurs direct losses;

2) the vehicle fleet is catastrophically outdated in almost all transport companies. When organizing cargo transportation in small towns, they are often forced to use outdated transport. This is especially true for small transport organizations or individual entrepreneurs;

3) the rise in prices for fuels and lubricants, which can significantly raise the cost of transportation. If there is a fairly tough competition in the market of transport and logistics services, it leads to a loss of profits by the company [4].

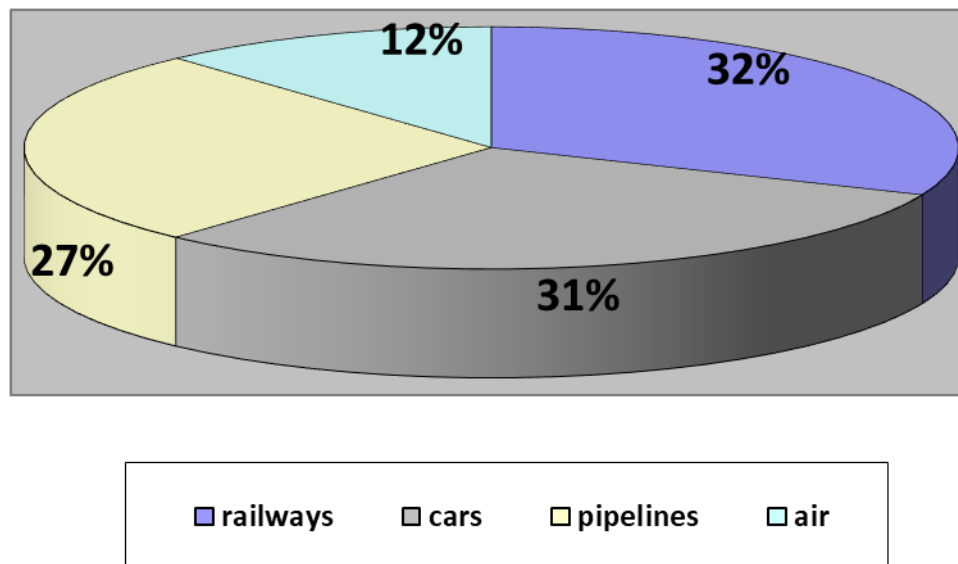
For this reason, the main task of the state policy in the field of transport of the Republic of Belarus is the formation of an effective transport and logistics system that allows meeting the needs of the economy and citizens in transportation, as well as creating conditions for the development of the country's transit potential.

In order to solve these problems, in accordance with the Program for the Development of the Logistics System for the period up to 2025, a network of large transport and logistics centers should be formed on the territory of the Republic of Belarus, which, in turn, will positively affect the expansion of sales markets and the range of services provided to existing domestic logistics operators. From the experience of Western European countries, it can be concluded that the formation of such centers meets the requirements and development trends of the world market. For example, in the Netherlands, the activity of transport and logistics centers brings 40% of the income of the transport complex, in France - 31%, in Germany - 25%. In the countries of Central and Eastern Europe, this share is on average 30%.

In the Republic of Belarus, the first logistics structures that meet the requirements of international standards appeared only in 2003 - logistics centers were opened in the Kolyadichi industrial zone (Minsk) and on the basis of the "Brestgruzavtoservis" customs border terminal (Brest). At the moment, 43 logistic business entities function in the

republic. 31 of them are located in Minsk and six - in the Brest region [7]. Nine out of 16 trade and logistics centers serve their own cargo flows, belong to RUE “Beltamozhservis”, the rest were created through investments of national and foreign investors (from Russia, Azerbaijan and Iran).

It should be noted that the Republic of Belarus has a good geographical position and for this reason, over 41.7% of the export of services is accounted for by transport. As can be seen in Figure 4, in 2020, in terms of types of freight transport, the railway was in the lead, the second position was taken by road, and the third - by rail. Figure 2.6 shows the structure of exports of services by type of freight transport in 2019.



*Figure 4 – Structure of export of services by type of freight transport in 2020*

At the moment, in the Republic of Belarus, transit logistics services are not a significant area for attracting investments. The share of transit services in the total volume of export operations accounts for up to 12% of the total amount, which is 3 times lower than the world average. At the same time, the main item of export of services (54%) is the transport and forwarding activities of Belarusian business entities.

### 3 Proposed changes to the transportation system to solve the problems

The formation of a modern transport and logistics system involves the creation of an appropriate infrastructure based on progressive transport and logistics technologies, forms of organization of production and delivery of goods, as well as a network of transport and logistics centers.

All of the above changes in the transportation of the Republic of Belarus necessitate the use of more efficient, less costly transport, which can be electric transport.

The main advantage of this type of transport is the cost of refueling and its environmental friendliness. The use of vehicles with an electric motor is 2-3 times cheaper than vehicles with a gasoline engine.

At the same time, one of the main disadvantages is the cost of transport and the time spent on charging. In the delivery of products, especially perishable products, it is important to deliver them in a short period of time. So far, electric vehicles cannot boast of this. There are some models of electric trucks that can make it possible to deliver goods in a short period of time, but the cost of such trucks reaches several hundred thousand dollars, which at the initial stage of modernization is quite costly for most enterprises.

Therefore, at this stage of the introduction of electric transport, a qualitative breakthrough is needed in the creation of more powerful, cheaper and more compact devices that accumulate electricity on an electric vehicle, otherwise it will have a rather narrow field of application. In its current form, it can be used mainly in urban infrastructure: for passenger and freight traffic only on fixed routes, for delivering goods to home, in exhibition, park and other closed areas.

In order to increase the efficiency of road cargo transportation, it is necessary to solve a number of important tasks:

- 1) create a unified transport and logistics system, consisting of both state organizations and organizations of private ownership;
- 2) stimulate the inflow of foreign investment into this sector of transport and logistics services, for example, through the construction of logistics centers and roadside service centers. The emergence of multinational corporations with their advanced strategies and technologies will help create a stable and successful market for logistics services;
- 3) significantly expand the range of transport and logistics services (including planning, control, management and delivery) with the active use of outsourcing of logistics services (3PL technology) in the international market;
- 4) organize the opening of foreign multifunctional logistics centers that could provide comprehensive services to ensure the management of commodity, service and information flows, which are designed to promote goods, including Belarusian production and their sale in the country of destination;
- 5) to form a positive image of national suppliers of logistics services in the international market, using the experience of international logistics companies in the field of customer-oriented marketing;

6) make changes to the existing regulatory framework, in particular on international transport, to unify document flow;  
7) organize a system of training and retraining of highly qualified personnel for the purpose of their free work in the field of 3PL and 4PL technologies and transport services.

#### 4 Conclusion

From the above, it follows that it is necessary to coordinate the state policy for the development of domestic logistics, to form a centralized institute for managing the logistics system. The simultaneous solution of the above tasks, taking into account the development trends of the world market of logistics services, will allow the companies of the Republic of Belarus to gain stable positions in international logistics [5].

It is known that the developed logistics infrastructure of the country allows to increase the inflow of foreign investments, and also allows to significantly increase the volume of transit traffic. Thus, it will make it possible to form additional competitive advantages of domestic participants in the market of transport and logistics services, which will be reflected in a significant increase in the country's export potential [8].

Thus, we can say that road cargo transportation takes a significant place in the development of the economy of the Republic of Belarus. The development and improvement of transport and logistics services makes it possible to provide a range of transport services of a higher quality, thereby increasing transit cargo flows through the territory of Belarus, as well as contributing to the integration of the republic into the European transport system. In this regard, there is still a fairly large amount of work to create high-quality road service conditions on all transport corridors of the republic, reduce downtime at the border, search for funding sources and mechanisms for implementing the developed programs and measures [9].

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*Kot N.G.*

#### FORECASTING SMALL BUSINESS DEVELOPMENT IN BREST REGION BASED ON ECONOMIC TRENDS

*Kot N.G.*

**Abstract:** The article examines the economic crisis indicators which include a global economic downturn, reduced discount rate of the US Federal Reserve and setting negative rates by the European Bank, a decrease in the unemployment rate, yield curve inversion and a significant growth of gold price. The timely prediction of global crisis phenomena will allow small businesses to reduce losses arising from factors that are beyond their control.

**Keywords:** small business, forecasting, economic crisis, indicator.

**Introduction.** Small business is the key element of the market economy and plays an important role in social stabilization, creating new jobs, accelerating economic growth through economic restructuring and redistribution of labor resources.

The issue of small business development is given great attention by any government, including the Republic of Belarus. In most countries, programs and strategies for small business development define the main objectives and principles of improving state regulation and support for small business development, and address an increase of its contribution to the results of socio-economic development of the country.

The dynamically growing small business sector is capable to significantly improve the structure of the Belarusian economy, increase its competitiveness, ensure effective employment and growth of incomes of the population.

As for the economic trends of the country, it is worth noting that in 2020 - 2021, the direction of the economic development of the Republic of Belarus was determined by the influence of factors enabling the emergence of the global financial crisis.