

UDC 338.4

PROSPECTS OF RIVER TRANSPORT DEVELOPMENT IN UKRAINE**Oleksandr Nazaretian***National Aviation University, Kyiv**Scientific advisor –Kateryna Molchanova, PhD in Economic, associate professor*

Keywords: river passenger and freight transport, transportation demand, inland waterway transport.

The main benefit of river transport operation is its cheapness and safety in comparison with other competing transport modes. Ukraine owns a number of various natural resources including rivers suitable for transport operation, the length of which is about 6000 km. The navigable rivers of Ukraine are the Dnipro, Pripjat, Desna, Southern Bug and Danube. Even though, the amount of transported goods and passengers by river transport in the country is rapidly decreasing every year and there is a risk that this mode will terminate its operation in the nearest future.

River transport in Ukraine is in a state of decline since the country independence. For instance, if in 1975 the number of transported passengers was 27.9 million passengers, in 2018 the number reached only 596.2 thousand passengers which is only 2% of the 1975 level [1]. There are several factors that hinder the revival and further development of river transport. The most important is that the demand for the transportation of goods by river transport has significantly decreased, which has reduced the profit of the entire sphere in a result. Then, the authorities were not interested in developing and maintaining the entire infrastructure, which was already requiring a large money investment. Consequently, river transport in Ukraine is no longer considered safe, since the entire infrastructure is worn out and requires major reconditions, procurement of new ships, update of technical base and increase of freight turnover in general. Let's consider the main aspects of the operation of river transport in the field of passenger and cargo transportation.

1. Passenger river transportation.

The main navigable roads of Ukraine are the Dnipro River - 1,205 thousand km and its tributaries the Desna River - 520 km and the Pripjat River - 60 km, also, the Danube River - 160 km and partly the Southern Buh River - 155 km [2]. On along whole river routes of Ukraine, there are 12 river ports, which have an appropriate infrastructure for passenger transportation services, including big cities such as Kyiv, Odessa, Cherkasy, Dnipro, Zaporizhya, Kherson and so on.

The longest river in Ukraine is the Dnipro River which passes through all the central regions of the country including Kyiv and flows into the Black Sea near the city of Kherson. The river connects a lot of big cities and small towns. So, the opening of whole-year routes in Kyiv and other regions will solve an important task of decreasing the usage of private vehicles and choosing public transport instead. It is important to set up the river transportation in complex, integrating it in the

existing transport system involving the same prices and even brand. The tourist water trips can be provided along the Danube River. It runs through Germany, Austria, Hungary, and Romania to the south side of Ukraine near the small town Vylkove in Odessa region. Such location enables to set up small international cruises and water trips to the European countries, which will increase both interest in river transportation and Odessa region attractiveness for foreign tourist.

2. Freight river transportation.

It becomes clear that river transport mainly delivers non-perishable goods due to possible long delivery terms, namely materials for construction or production. So, the main freight (75%) is bulk cargo [3]. Then, the big part (35%) of transportation includes oversized freight (with a mass of one piece of more than 1 ton), 25% of cargoes are not overall (those that are forced to transport in size on open ships or on the deck of cargo ships (combines, tractors, different machinery, etc.). All types of freight are shown on Figure 1.

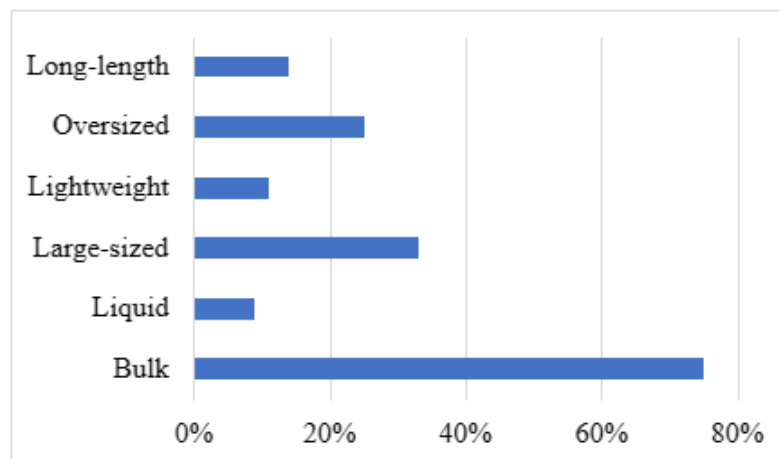


Figure 1. Types of freight transported by river transport

In Ukraine, before the full-scale invasion, the demand for transportation by inland waterways was growing. Cargo owners, primarily metal producers and grain traders, in conditions of economic instability, rising fuel prices, and increasing incidents of disruptions in rail and road transport, tried to reduce transport costs and improve transport logistics. Manufactures can adjust a multimodal system to deliver goods to from the point of production to the point of consumption with a help of river transport. Preliminary, the manufacturing enterprises should be located along the river. This will reduce the cost of delivering goods to river ports for further transportation. For instance, the city of Cherkasy is located near the Dnipro River in 160 km from Kyiv. There is a number of plants and factories which produce machinery (bus factory “Bogdan”), construction and electrical components, etc. The big majority of the goods or materials produced on these plants are suitable for river transportation. As the city is not so far from the destination, it will not take much more time to deliver goods comparing to road or railway transport, moreover, it will be cheaper and more

efficient. Also, river transport allows to transfer a bigger amount of freight as it has a larger capacity than competitive modes of transport.

It should be noted that river transport has a number of advantages over road and rail, which creates the prerequisites for changing logistics routes in favour of water transport:

1) carrying capacity: 2 barges and a tug replace 250 trucks, or 100 railway cars and 2 locomotives; the possibility of transportation of large cargoes;

2) savings on road repair: 1 million tons of cargo transported by river (redirected from land transport) reduces road repair costs by up to UAH 1 billion. within 4 years;

3) environmental friendliness: modern river transport is the most environmentally friendly along with rail and road transport, which significantly increases its competitiveness in view of the latest trends in EU greening and the implementation of relevant standards.

Conclusion

River transport can become a significant part of Ukraine transport system as it is cheaper in operation and have a bigger capacity in both passenger and freight ships. There are a lot of prospective in modernizing passenger river infrastructure as it will enable opening a variety of inland and international routes for tourists. Freight river transport can be more efficient than road and railway mode, especially in delivering materials for construction which can be oversized or overall. Consequently, investing in river transport will bring our transport system new opportunities for logistics tasks and mobile mass transit system for passengers.

References:

1. Krykavskiy Y., Shandrivska O., Shynkarenko N. Services of River Passenger Transport in Ukraine in the Trend of Behavioral Economy. *Transport Means: Proceedings of 24th International Scientific Conference* (Kaunas, 30 September – 02 October, 2020). Kaunas, Lithuania: Kaunas University of Technology, 2020. P. 38-43. URL: <https://bit.ly/3ZLHzBf> (Last accessed: 10.03.2023).

2. Nezdoyminov, S., & Milashovska, O. (2019). River travel as a direction for the development of tourism in Ukraine. *Journal of Geology, Geography and Geoecology*, 28(1), 148-158. DOI: <https://doi.org/10.15421/111916> (Last accessed: 10.03.2023).

3. Крикавський Є.В., Шандрівська О.Є., Шинкаренко Н.В. Дослідження потенціалу річкового транспорту України на засадах концепції сталого розвитку. *Вісник Національного університету «Львівська політехніка»*. Серія «Проблеми економіки та управління». 2019. Вип. 7, № 4(2). С.45-54. DOI: <https://doi.org/10.23939/semi2019.04.045> (Last accessed: 10.03.2023).