Development of Transport and Logistics Infrastructure in Russian Arctic

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ABSTRACT

Development of transport and logistics infrastructure is one of the key factors of the economic growth and natural resources development in the regions of the Russian Arctic. Marine transport system and first of all the Northern Sea Route (NSR) are import parts of Arctic transport complex. The authors underline the growing role and the significance of the NSR. Arctic ports provide the life and activity of the population of the Arctic zone of the Russian Federation (AZRF), transfer coasting freights and foreign trade freights. The most important Russian Arctic ports and perspectives of their development are studied. The authors present the main directions of the transport and logistics development in Arctic basin according to the new Russian Port Infrastructure Development Strategy for 2030. Forecasts of port capacities which take into account prospective projects in the Russian Arctic regions are given. In Russia the share of the Arctic ports in transfer of freights by 2030 can attain 13%. The most perspective directions of development of coastal port infrastructure of the AZRF are shown. Modernization and development of the port and technical fleet including service and auxiliary vessels of different functions could provide effective work of sea transport on approaches to ports and in ports. Development of transport and logistics infrastructure in Russian Arctic basin could provide high level of cargo operations in the region, ecological safety and safety of marine navigation in Arctic.

KEY WORDS: Russian Arctic; Transport and logistics infrastructure; Arctic ports; Freights transfer; Strategy of development; Arctic zone of the Russian Federation; Ports modernization and construction.

INTRODUCTION

The shortest ways between the markets of the North-West Europe and the countries of the Asian-Pacific region are going through the Arctic. Perspective of transcontinental shipment development, increase in oil and gas extraction on the Arctic shelf and growth of interior and exterior transport demands set up conditions of increase of transport activity in Arctic. Special importance of the NSR is connected with the perspectives of marine transportation of energy resources in the countries of the East Asia, such as Japan, India, South Korea, Singapore and China. In august-september 2013 the vessel from the Chinese port Dalian passed the Bering Strait and reached Dutch port Rotterdam via the NSR by 35 days. It permit to reduce the time of the trip by 2 weeks and to economize the fuel. The NSR is a real alternative to the railway transport. The liquidation of the “Gazprom” monopoly in the sphere of the liquefied natural gas (LNG) export opens the horizons of the Asian-Pacific region for other two companies such as “Rosneft” and “Novatek”. The perspective growth of the natural resources development on the shelf, islands, archipelagos and in the coastal areas of the Arctic requires the development of icebreakers and transport fleet, ports, transport and logistics infrastructure providing safe marine transportation. These tendencies also predetermine the necessity of transport and logistics infrastructure development for railroad, highway, river and air passages. The ways in the latitude direction are the NSR (fig.1), railways and air passages. And the meridional routes are presented by railroad lines and highways which provide an exit to the southern industrially developed areas of the European part of Russia and also to Ural, Siberia, and Far East regions (Pavlenko, 2011). This network will make base of a perspective transport complex in Russian Arctic. The development of the Arctic ports has not so many perspectives without long remote railroad lines. The most perspective railroad projects are “Belkomur” and “Northern latitude passage”. The increase of the competitiveness of the products made in the Arctic zone of the Russian Federation will be the significant result of transport and logistics infrastructure development. That can provide the base for future economic and social development of the Russian Arctic regions.

Figure 1. The various Northern Sea Route options and Russian ports (Russia’s, 2008)