

POLITICAL PROCESSES AND INSTITUTIONS

Arctic and North. 2023. No. 51. Pp. 98–132

Original article

UDC [338.47:32](985)(045)

doi: 10.37482/issn2221-2698.2023.51.116

Evolution of Russian State Policy for Development of the NSR (2018–2022): Influence of Geopolitical and Geoeconomic Factors

Jawahar V. Bhagwat ^{1✉}, PhD (Hist.), Associate Professor

Valeriia A. Khalturinskaya ², Student

^{1,2} Northern (Arctic) Federal University named after M.V. Lomonosov, Naberezhnaya Severnoy Dviny, 17, Arkhangelsk, Russia

¹ jawahar.bhagwat@gmail.com ✉, ORCID: <https://orcid.org/0000-0002-8100-9976>

² khalturinskaya.v@gmail.com, ORCID: <https://orcid.org/0000-0002-7561-1071>

Abstract. Russia published a series of documents from 2018 to 2022 indicating its desire to transform the Northern Sea Route (NSR) into a globally competitive international shipping route due to its awareness of the importance of the NSR for the socio-economic development of the Arctic zone of the Russian Federation. This article examines the evolution of Russian policy through a regulatory analysis combined with an empirical analysis of shipping along the NSR over the period 2018–2022, as well as the impact of Western sanctions. The aim of the article is to examine the viability of Russia's new infrastructure plan for the NSR, published in August 2022. The analysis of Russia's policy towards the NSR suggests that Russia needs to review its policy in relation to the imposed Western sanctions. This would entail a new focus on revitalising the shipbuilding industry. The targets set earlier, and then in 2022, for shipping cargo on the NSR should be redefined taking into account current realities. The practical significance of the article is in its use by policymakers engaged in the development of the NSR and researchers of Arctic shipping.

Keywords: transport policy, Northern Sea Route, Russia, Arctic shipping, infrastructure, sanction

Introduction

The NSR is becoming increasingly significant due to global warming and the changes in ice conditions. According to various estimates, by 2045, navigation in the Arctic zone will be possible without icebreaking support [1]. Therefore, states and companies pay greater attention towards NSR as a possible alternative for southern shipping routes, such as the Suez Canal.

However, the conditions in which vessels can operate during navigation via NSR are harsh and rough. Icebreaking support is needed, and emergency stations and teams must be established. Navigation via the NSR will appeal to international shipping companies only after that. Since the NSR is a Russian national route, it is the Russian responsibility and in its interest to develop the necessary infrastructure so that NSR could become a competitor for popular southern routes. Hence, the article aims to assess the evolution of Russian state policy for the NSR and assess the influence of geopolitical and geo-economic factors. Therefore, the following objectives were established:

* © Bhagwat J., Khalturinskaya V.A., 2023

For citation: Bhagwat J., Khalturinskaya V.A. Evolution of Russian State Policy for Development of the NSR (2018–2022): Influence of Geopolitical and Geoeconomic Factors. *Arktika i Sever* [Arctic and North], 2023, no. 51, pp. 116–155. DOI: 10.37482/issn2221-2698.2023.51.116

- to analyze Russia's normative documents related to the development of the NSR;
- to characterize the evolution of Russian state policy to the development of the NSR;
- to determine the influence of geopolitical and geo-economic factors on Russian policy towards the NSR.

Literature review

Few Russian and foreign researchers are engaged in the study of changes in the Russian state policy on the development of NSR. A. Moe has written several articles related to Russian policies with respect to the NSR [1, Moe A., pp. 209–227; 2, Moe A., pp. 199–208]. B. Gunnarsson devoted two of his works to the study of international shipping on the NSR and changes in state policy to improve Arctic shipping [3, Gunnarsson B., Moe A., pp. 4–30, 4; Gunnarsson B., pp. 1–8]. Russian authors have extensively analyzed the NSR [5, Fedorov V.P., pp. 1–7]. Some collective works by Russian authors have contributed to the discourse [6, Sevastyanov S., Kravchuk A., pp. 228–250; 7, Travkina E.V., pp. 1–6].

N.I. Didenko and V.I. Cherenkov devoted their research to assessing economic and geopolitical factors [8, Didenko N.I., Cherenkov V.I., pp. 1–10]. E.G. Katysheva, in her work, assessed the role of gas in the evolution of the NSR [9, Katysheva E.G., pp. 1–6]. The international dimension of the NSR was analyzed by N.S. Lipunov [10, Lipunov N.S., pp. 78–83].

Arctic marine logistics and the challenges of the NSR have also been analyzed [11, Ilin I., pp. 1–309]. The Russian perspective is reflected in the research of V. Erokhin, A.A. Sergunin and V.N. Konyshchev [12, Erokhin V., Sergunin A.A., Konyshchev V.N., pp. 283–303]. However, none of the articles have analyzed the new infrastructure plan (2022), changes in the organisation of Rosatom and the effect of sanctions on the development of the NSR post the special military operation in Ukraine.

Methodology and materials

The research mainly covers the period from 2018 until 2022. The work is based on the system, structural-functional and institutional approaches which assist in analysing government policy and institutions. The IR theory of neorealism is also used as it is in Russia's national interest to develop NSR as a national route with international opportunities. The geo-economics approach is relevant as the Russian authorities project the NSR as a possible international shipping route. Russian documents, namely policies and laws, formed a majority of the sources. In addition, the speeches of the Russian officials are included to analyse their opinions and to determine the way ahead for the development of the NSR. The empirical analysis was used in respect of permissions

granted by the Northern Sea Route Administration (NSRA). These statistics assisted in the analysis of the effect of Russian state policy for the NSR¹.

Russian state policy for the NSR (2018–2022)

The Northern Sea Route as an important Russian strategic driver

The Northern Sea Route (NSR) is the Russian Arctic's main sea line of communication². Throughout the NSR, there are ports such as Sabetta, Igarka, Dudinka, Dickson, Tiksi and Pevek, which are essential for Russia's economic development, because they contribute to the export of hydrocarbons and other mineral resources [13, Vylegzhanin A., p. 286]. Fig. 1 presents a map of the NSR and adjacent territories.

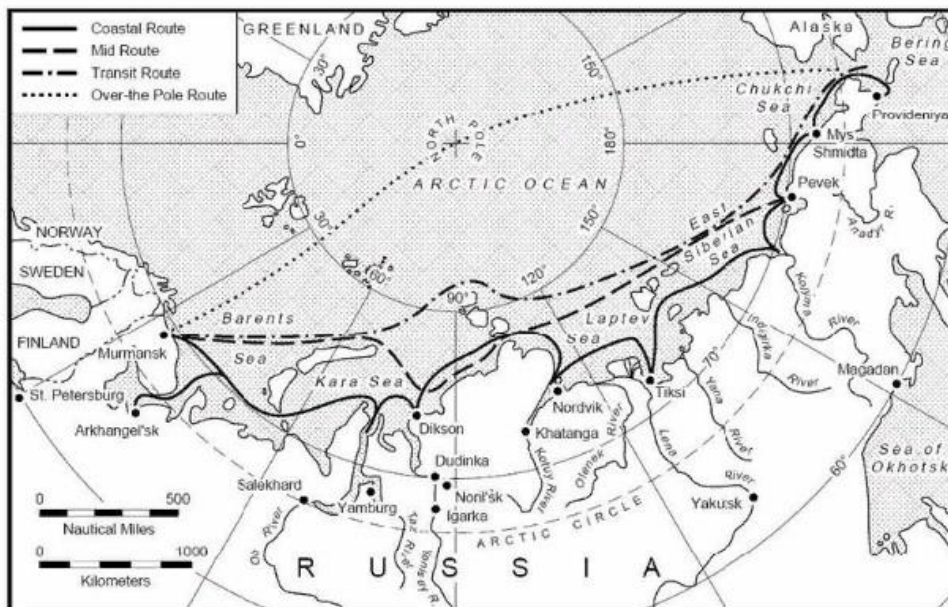


Fig. 1. Map of the Northern Sea Route and adjacent territories³.

It has been reiterated since the Soviet era by many politicians and scientists that the Northern Sea Route (hereinafter referred to as the NSR) has a strategic character for Russia. During the 1990s, the Russian leadership practically stopped paying attention to Arctic policy, and only since the 2000s, the NSR has become a central theme in Russian politics, considered as a key element in Russia's attempt to restore its erstwhile great power status [1, Moe A., p. 209]. This

¹ Spisok razresheniy na plavanie sudov v akvatorii sevmorputi [List of permits for sailing vessels in the waters of the Northern Sea Route], December 05, 2022. URL: <https://nsr.rosatom.ru/rassmotrenie-zayavleniy/razresheniya/> (accessed 1 December 2022); Severnyy Morskoy Put'. Itogi 2020 goda [The Northern Sea Route. Results of 2020], January 19, 2021. URL: <https://arctic.gov.ru/wp-content/uploads/2021/02/2020.pdf> (accessed 1 December 2022).

² Dolgosrochnnyy prognoz ledovoy obstanovki v akvatorii Severnogo morskogo puti razrabotal arkticheskiy i antarkticheskiy NII [The Arctic and Antarctic Research Institute has developed a long-term forecast of the ice situation in the waters of the Northern Sea Route], September 26, 2022. URL: <https://poisknews.ru/news/dolgosrochnnyj-prognoz-ledovoj-obstanovki-v-akvatorii-severnogo-morskogo-puti-razrabotal-arkticheskij-i-antarkticheskij-nii/> (accessed 1 December 2022).

³ Russia's Shallow Arctic Seas and Straits. Map of the Northern Sea Route, October 23, 2008. URL: https://benmuse.typepad.com/arctic_economics/2008/10/russias-shallow-arctic-seas-and-straits.html (accessed 1 December 2022).

Severnyy Morskoy Put'. Itogi 2020 goda [The Northern Sea Route. Results of 2020]. January 19, 2021. URL: <https://arctic.gov.ru/wp-content/uploads/2021/02/2020.pdf> (accessed 1 December 2022).

was mainly due to resource exploitation and partly due to global warming when the ice situation began to change [1, Moe A., p. 211], and the prospects for using the NSR were manifested.

According to researchers, the NSR is opening up for traffic faster than earlier models expected (see Fig. 2). This applies to both vessels for open water (OW) navigation and polar class vessels (PC4 and PC6). This could lead to 33–60% more goods being transported along Arctic routes [15, Cao et al., 4–8]. On the other hand, some other researchers state that this may also lead to shipping companies using a Transpolar route (see Fig. 3), obviating the use of the NSR in the future [16, Lynch A.H., Norchib Ch.H., Li X., pp. 2–3]. This may also call into question the requirement of massive spending on infrastructure along the NSR unless it is purely for the development of the AZRF and the export of natural resources. However, this research may not be accurate in the short term, as, for instance, in 2022, the shipping season (generally from mid-June — mid-December) closed ten days earlier than expected due to ice formation in the East Siberian Sea ⁴. It may be noted that when Novatek attempted to extend the shipping season in 2020–2021, one of its ships “Nikolai Yevgenov” damaged one of its three azipods (propulsion system) in January 2021 ⁵. Similarly, in November–December 2021, a number of vessels were stuck in ice in the Eastern part of the NSR ⁶.

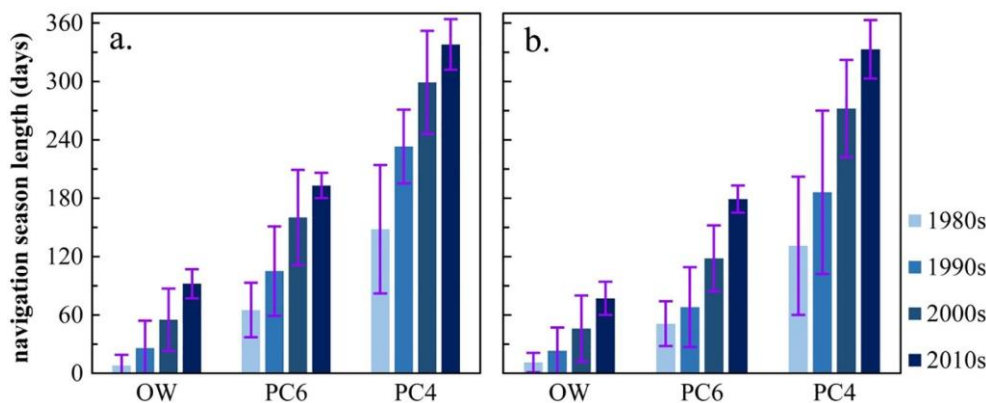


Fig. 2. Trans-Arctic shipping routes expanding faster than the model projections [15, Cao et al., 4].

⁴ Ditel T. Sevmorput' privel na Zapad [NSR led to the West]. November 29, 2022. URL: <https://www.kommersant.ru/doc/5693647> (accessed 1 December 2022).

⁵ Ibid.

⁶ Voytenko M. LNG tanker damaged while transiting the NSR. January 19, 2021. URL: <https://www.fleetmon.com/maritime-news/2021/32337/lng-tanker-damaged-while-transiting-northern-sea-r/> (accessed 1 December 2022).

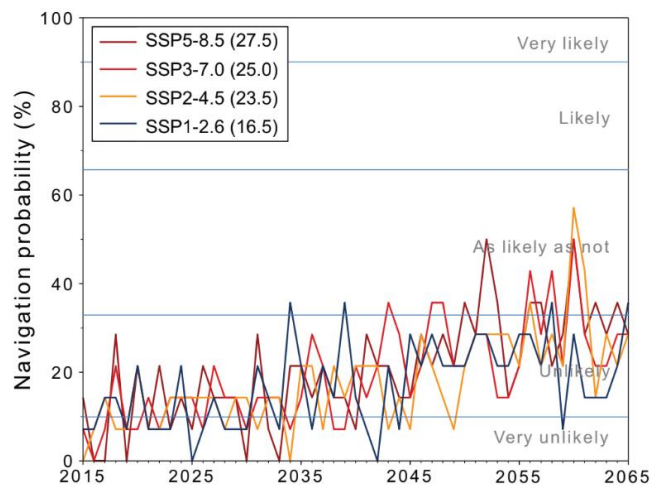


Fig. 3. Projections from 14 Coupled Model Intercomparison Project (CMIP) models of climate change highlighting four scenarios of the probability of Arctic navigability [16, Lynch A.H., Norchib Ch.H., Li X., p. 2].

Some Russian politicians and researchers began to make statements that the NSR could become an alternative to southern routes, the main one — the Suez Canal. Thus, among the advantages of the NSR over the Suez Canal, one can distinguish several factors.

- The most crucial advantage of the NSR is the smaller distance between the ports of Asian countries and ports in Europe and Russia. Table 1 presents comparative data on the distance between key ports and a comparison route map. Therefore, on average, 25 days and 625 tons of fuel oil are required for the transition from Europe to China by the Northern Sea Route, and 35 days and 875 tons of fuel oil— via the Suez Canal [5, Fedorov V.P., p. 4].

Table 1

Comparative table of distances between key seaports (in nautical miles)
[8, Didenko N.I., Cherenkov V.I., p. 2]

Shipping routes via:	From Hamburg to:			
	Vancouver	Yokohama	Hong Kong	Singapore
Northern Sea Route (NSR)	6.635	6.920	8.370	9.730
North West Passage	n/d	11.507	n/d	n/d
North West Passage / NSR	n/d	1.00	n/d	n/d
Suez Canal	15.377	11.073	9.360	8.377
Suez Canal / NSR	2.32	1.60	1.12	0.86
Cape of Good Hope	18.846	14.542	13.109	11.846
Cape of Good Hope / NSR	2.84	2.10	1.57	1.22
Panama Canal	8.741	12.420	12.920	15.208
Panama Canal / NSR	1.32	1.80	1.55	1.56

- The price of transportation by sea transport routes directly depends on the cost of fuel. Thus, with increased fuel prices, transportation costs will increase, to the advantage of the NSR, where less fuel is consumed. Moreover, less fuel consumption will have a positive effect on the environment.

- The fee for passage through the Suez Canal is increasing. From January 2023, the fee for the transit of ships increased by 15%, and for bulk carriers and cruise liners — by 10%. An increase in prices could also be observed in 2022, when the daily charter rate for tankers increased by an average of 88% compared to 2021. For gas carriers, it increased by an average of 11%⁷.
- The route is relatively free of shipping compared to the Suez Canal, and hence there is no time penalty⁸. The accident with the container ship “Evergreen” in the Suez Canal in 2021⁹ showed how vulnerable the world’s logistics chains are and how high the need for alternative routes is.

The NSR undoubtedly has several advantages over the Suez Canal. However, other factors such as political uncertainty, weather, reliability, search and rescue and availability of a standby port also play a crucial role in a decision by shipping companies to choose a particular route.

In addition, the importance of the NSR is also noted by Russian leaders. V. Ruksha of Rosatom declared that the NSR could take away up to 15% of cargo traffic from the Suez Canal. This will be advantageous for Asian countries — Japan, South Korea and China, mainly the northern provinces¹⁰.

Moreover, Russian Deputy Prime Minister Alexander Novak stated that the NSR is a global transport corridor providing transit between Europe and Asia¹¹. A. Novak also highlighted several advantages for the Russian economy from the development of the NSR. In particular, the overall effect of GDP growth from implementing projects may amount to about 30 trillion roubles by 2030, and the increase in tax revenues is slated to be more than 10 trillion roubles¹².

President Vladimir Putin stated in 2019 that it is an imperative to make the NSR safe for navigation and commercially viable¹³, and he reiterated this in 2022¹⁴. According to Presidential

⁷ Prokhod po Suetskому kanalu snova vyrastet v tsene [Passage through the Suez Canal will rise in price again]. September 20, 2022. URL: https://logirus.ru/news/transport/prokhod_po_suetskому_kanalu_snova_vyrastet_v_tsene.html (accessed 1 December 2022).

⁸ Vinogradov I. Konteynerovoz Ever Given zastryal nadolgo [Container ship Ever Given stuck for a long time]. March 26, 2021. URL: <https://www.vedomosti.ru/opinion/articles/2021/03/25/863243-konteinerovoz-given> (accessed 1 December 2022).

⁹ Ibid.

¹⁰ Sevmorput' mozhet "ottyanut" do 15% gruzopotoka iz Suetskogo kanala — Rosatom [The Northern Sea Route can "take away" up to 15% of cargo traffic from the Suez Canal — Rosatom]. October 13, 2022. URL: <https://fomag.ru/news-streem/sevmorput-mozhet-ottyanut-do-15-gruzopotoka-iz-suetskogo-kanala-rosatom/> (accessed 1 December 2022).

¹¹ Murmanskii port — arkticheskie vorota Soyuznogo gosudarstva Rossii i Belorussii [Murmansk Port is the Arctic gateway of the Union State of Russia and Belarus]. September 23, 2022. URL: http://vch.ru/event/view.html?alias=murmanskii_port__arkticheskie_vorota_soyuznogo_gosudarstva_rossii_i_belorussii (accessed 1 December 2022).

¹² Ignatieva A. Pravitel'stvo rasporyadilos' sozdat' glavnoe upravlenie Severnogo morskogo puti [The Government has ordered the creation of the main Directorate of the Northern Sea Route]. August 2, 2022. URL: <https://neftegaz.ru/news/transport-and-storage/745709-pravitelstvo-rasporyadilos-sozdat-glavnoe-upravlenie-severnogo-morskogo-puti/> (accessed 1 December 2022).

¹³ Rossiya stroit plavuchie atomnye reaktory dlya osvoeniya mestorozhdeniy Severa [Russia is building floating nuclear reactors to develop the fields of the North]. October 12, 2022. URL: <https://www.epochtimes.com.ua/ru/poslednie->

Envoy Yu. Trutnev, the NSR could become the second global transport corridor, taking part of the cargo from the Suez Canal, because it is relatively shorter¹⁵.

Moreover, Russian officials note that under the conditions of Western sanctions post the special military operation in Ukraine, most of the Russian cargo flow has turned to the East. Thus the importance of the NSR for the Russian economy has increased significantly. Therefore, the NSR can become the second global transport corridor after the Suez Canal¹⁶. Consequently, Russian authorities continue to invest significant resources in developing the NSR.

However, examining the changes in Russia's state policy regarding the development of the NSR, it can be stated that the Russian leadership has constantly modified its policies on the importance of the NSR for the country. So, in the initial period, the Russian leadership considered the NSR as a promising substitute for the southern routes, especially the Suez Canal.

Liberalisation and market-oriented approach seemed to be favoured in the initial period by the state for increasing transportation along the NSR. Thus, one of the declared objectives of the NSR policy was to ensure equal access for interested shipping companies, including foreign ones.

Vital decisions for the evolution of the NSR were made in 2018–2019. The most important one was undoubtedly a decree¹⁷, in which Russian President Vladimir Putin set the task to achieve 80 million tons of cargo turnover on the NSR. In December 2018, specific measures were initiated in accordance with the tasks set out in the decree¹⁸.

The Federal Law of December 2018 introduced a change in the management of the NSR. The management of the NSR is based on the principle of “2 keys” — the Ministry of Transport is responsible for regulation, and Rosatom is responsible for commercial and economic functions. Thus, the principle of separate control of the NSR was introduced between the Ministry of Transport of Russia and the state company “Rosatom” [17, Sergunin A.A., p. 82]. Rosatom was further tasked with being the sole operator of the Northern Sea Route and the provider of infrastruc-

novosti-mira/rossiya-stroit-plavuchie-atomnye-reaktory-dlya-osvoeniya-mestorozhdeniy-severa-146783 (accessed 1 December 2022).

¹⁴ Putin ne uvidel nerashaemyh problem po Sevmorputi [Putin did not see unsolvable problems along the Northern Sea Route]. June 16, 2022. URL: <https://www.interfax.ru/russia/772494> (accessed 1 December 2022).

¹⁵ Orbital'nuyu sputnikovuyu gruppirovku sozdayut dlya razvitiya Severnogo morskogo puti [An orbital satellite grouping is being created for the development of the Northern Sea Route]. October 21, 2022. URL: <https://primamedia.ru/news/1381827/?from=37> (accessed 1 December 2022).

¹⁶ V pravitel'stve rasskazali o planakh razvitiya Sevmorputi [The government told about the plans for the development of the Northern Sea Route]. October 28, 2022. URL: <https://rossaprimavera.ru/news/14e2cf9c> (accessed 1 December 2022).

¹⁷ Ukaz Prezidenta Rossiyskoy Federatsii ot 07.05.2018 № 204 "O natsional'nykh tselyakh i strategicheskikh zadachakh razvitiya Rossiyskoy Federatsii na period do 2024 goda" [Decree of the President of the Russian Federation as of 07.05.2018 № 204 "On National goals and strategic objectives of the development of the Russian Federation for the period up to 2024"]. May, 2018. URL: <https://mvd.consultant.ru/documents/1056500?items=1&page=1> (accessed 1 December 2022).

¹⁸ Federal'nyy zakon Rossiyskoy Federatsii ot 27.12.2018 № 525-FZ "O vnesenii izmeneniy v otdel'nye zakonodatel'nye akty Rossiyskoy Federatsii" [Federal Law of the Russian Federation as of 27.12.2018 № 525-FZ "On amending certain legislative acts of the Russian Federation"]. December, 2018. URL: <http://extwprlegs1.fao.org/docs/pdf/rus183299.pdf> (accessed 1 December 2022).

ture and seaports. It is relevant to mention that “Rosatom” has the world’s largest icebreaking fleet [5, Fedorov V.P., p. 2].

The Ministry of Transport retained the authority to issue shipping regulations (including safety and environmental standards) and to develop international cooperation, including the execution of the Polar Code. Further, the Ministry is responsible for controlling and supervising transportation on the NSR. It was assumed that this reform would help the NSR to fulfil the presidential task of increasing the annual cargo volume.

To achieve the task of increased cargo turnover, it is crucial to focus on the AZRF since promising deposits of hydrocarbons and other mineral resources are located there. Moreover, the Arctic territories of Russia also depend on the NSR. The Ministry of the Far East was given the authority in 2019 to develop and implement state policy and legal regulation in the field of development of the Arctic because of the commonality of problems of remote regions. This organisation was rechristened as the Ministry of Development of the Far East and the Arctic of the Russian Federation¹⁹.

This State Commission for the Development of the Arctic, which exclusively deals with the development of the AZRF, acts in concert with this Ministry. Reference zones for development of the AZRF were introduced²⁰. This is an essential mechanism since the prospects of the NSR are related mainly to the coastal infrastructure — ports, sea terminals, dredging, roads and railways. Economically promising deposits in the coastal and offshore territories of the Arctic can become drivers for these projects [5, Fedorov V.P., p. 4]. Therefore, it is unsurprising that plans for infrastructure development of the NSR include the development of shore infrastructure.

Fundamentals of the state policy of the Russian Federation for the Arctic (period up to 2035)

The document of state policy concerning the Arctic approved by the President in March 2020, hereinafter referred to as the Arctic Policy, outlines the vision for developing the NSR²¹. This document highlights Russia’s main interests and priorities in the Arctic. The threats are related to potential or existing problems in Russia, while the challenges are related to external international factors. Moreover, the main tasks for the Arctic, including developing the NSR as a globally-competitive transport route, are highlighted.

¹⁹ Ukaz Prezidenta Rossiyskoy Federatsii ot 26.02.2019 № 78 "O sovershenstvovanii gosudarstvennogo upravleniya v sfere razvitiya Arkticheskoy zony Rossiyskoy Federatsii" [Decree of the President of the Russian Federation as of 26.02.2019 № 78 "On Improving public Administration in the development of the Arctic Zone of the Russian Federation"]. February, 2019. URL: <http://publication.pravo.gov.ru/Document/View/0001201902260038> (accessed 1 December 2022).

²⁰ Opornye zony razvitiya sostavyat osnovu gosprogrammy po Arktike [Supporting development zones will form the basis of the state program on the Arctic]. September 7, 2017. URL: <https://tass.ru/ekonomika/4543491> (accessed 1 December 2022).

²¹ Ukaz Prezidenta RF ot 5 marta 2020 g. № 164 "Ob Osnovakh gosudarstvennoy politiki Rossiyskoy Federatsii v Arktike na period do 2035 goda" [Decree of the President of the Russian Federation as of 05.03.2020 № 164 "On the fundamentals of the State Policy of the Russian Federation in the Arctic for the period up to 2035"]. March, 2020. URL: <https://base.garant.ru/73706526/> (accessed 1 December 2022).

In particular, in addition to the need to form a fleet capable of solving various tasks, emphasis is also placed on the importance of ensuring safe navigation, creating port and communication infrastructure, and developing cooperation. The importance of the environmental aspect is emphasised. The document noted the increasing pressure of the international community on Russia using the pretext of environmental degradation caused by industrial activities. The Norilsk Nickel leak incident²² became a precedent for putting more pressure on Russia.

Thus, it can be concluded that the 2020 document continues the established vector of development, while highlighting threats reflected in modern geopolitical realities. However, comparing the documents of 2008 and 2020, there are no significant innovations²³. Thus, it is noted that, in general, Russia continues its policy of developing regional leadership in the Arctic while trying to create interaction with other actors.

Strategy for the development of the Arctic zone of the Russian Federation and ensuring national security for the period up to 2035

The Strategy 2020²⁴, hereinafter referred to as the Arctic Strategy, mentions the requirement of cargo turnover on the NSR by 2024, specifies the types and number of transport and ice-breaking fleets, the need to create port and related infrastructure, and also highlights measures aimed at navigation safety on the NSR. The Strategy underlines the AZRF's development and emphasizes the NSR in a similar manner to the earlier document. It also highlighted the necessity of the development of infrastructure of the NSR, including an agency for maritime operations, a digital platform for this purpose, conducting geological exploration and dredging, deploying a space system, and developing communication technologies to improve navigation on the NSR.

From the point of view of the development of the NSR, both the Arctic Policy and the Arctic Strategy enunciated similar goals (infrastructure development, navigation safety, and development of modern technologies to facilitate navigation on the NSR). That is, the Russian leadership formed a vision for the future of the NSR, and these goals were linked in all the regulatory documents of this period.

²² Zlobin A. U «dochki» «Nornikelya» na Taymyre proizoshla novaya utechka topliva [The "daughter" of Norilsk Nickel on Taimyr had a new fuel leak]. May 17, 2021. URL: <https://www.forbes.ru/newsroom/milliardery/429519-u-dochki-nornikelya-na-taymyre-proizoshla-novaya-utechka-topлива> (accessed 1 December 2022).

²³ Klimenko E. Russia's new Arctic policy document signals continuity rather than change. April 6, 2020. URL: <https://www.sipri.org/commentary/essay/2020/russias-new-arctic-policy-document-signals-continuity-rather-change> (accessed 1 December 2022).

²⁴ Ukaz Prezidenta Rossiyskoy Federatsii ot 26.10.2020 g. № 645 [Decree of the President of the Russian Federation as of 26.10.2020 № 645 "On the Strategy for the development of the Arctic Zone of the Russian Federation and ensuring national security for the period up to 2035"]. October, 2020. URL: <http://www.kremlin.ru/acts/bank/45972> (accessed 1 December 2022).

Impact of State transport policy

The NSRA began issuing increasing approvals for sailing post-2012 when the Russian government started formalising rules to encourage shipping along the NSR²⁵. Furthermore, the above-mentioned policy changes had a positive impact on international shipping owing to the effect of geo-economics even though they were mostly directed internally. The NSRA had issued more than 1200 permits for passage along the NSR by 2021, i.e. the number of permits given almost doubled between 2013 and 2021. Despite the fact that most of the permits were for Russian vessels, we note the growing interest from other countries, including the Asian region. However, the majority of the traffic was to and from Western Europe to facilitate the LNG projects [4, Gunnarsson B., pp. 1–8, 14, Gavrilov V., p. 2]. Fig. 4 shows the statistics of international traffic on the NSR for the period 2013–2022.

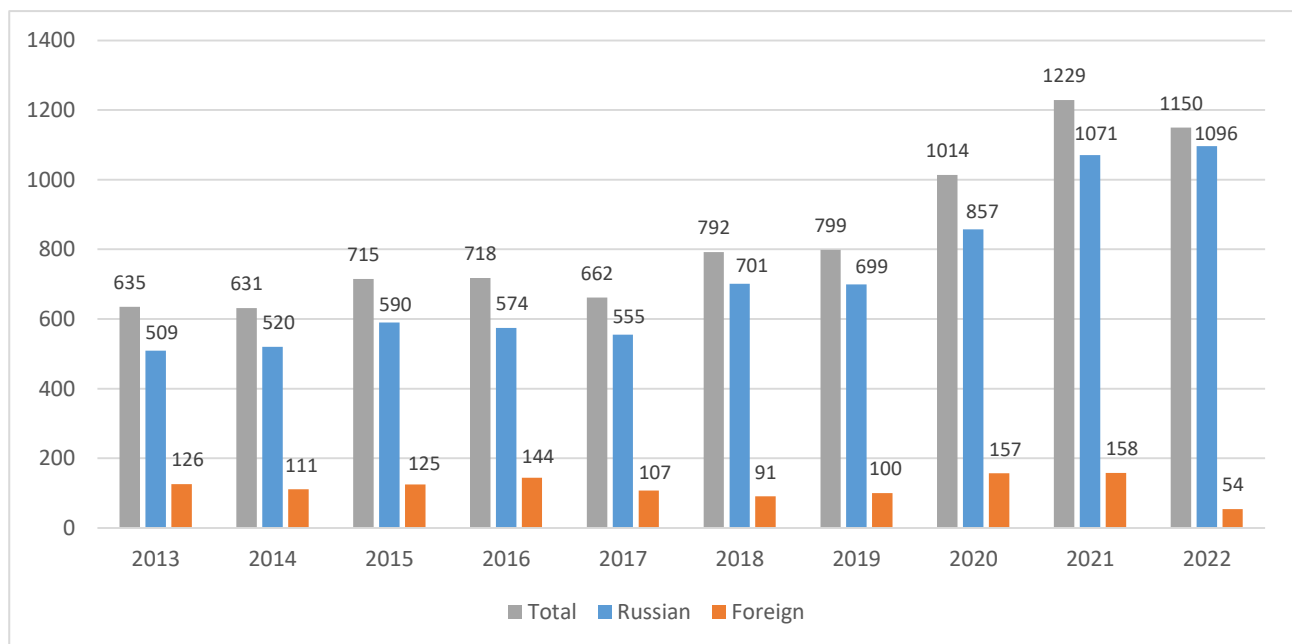


Fig. 4. Russian and foreign vessels on the NSR 2013–2022: number of permits²⁶.

Changes in State transport policy — 2022

In 2022, further changes to the regulations of 2018 were made. Glavsevmorput was disbanded in 1964 and was re-established under “Rosatom”. Therefore, it is now possible to restrict the vessel’s movements if the forecast of the ice situation differs from what is permissible for the

²⁵ Federal'nyy zakon ot 28.07.2012 g. N 132-FZ "O vnesenii izmeneniy v otdel'nye zakonodatel'nye akty Rossiyskoy Federatsii v chasti gosudarstvennogo regulirovaniya torgovogo moreplavaniya v akvatorii Severnogo morskogo puti" [Federal Law of the Russian Federation as of 28.07.2012 No. 132 "On Amendments to Some Legislative acts of the Russian Federation regarding the State Regulation of Merchant Shipping along the routes in the waters of the Northern Sea Route"]. July, 2012. URL: <https://base.garant.ru/70207760/#:~:text=Северного%20морского%20пути%22,Федеральный%20закон%20от%2028%20июля%202012%20г.,в%20акватории%20Северного%20морского%20пути%22> (accessed 1 December 2022).

²⁶ Spisok razresheniy na plavanie sudov v akvatorii sevmorputi [List of permits for sailing vessels in the waters of the Northern Sea Route]. 2022. URL: <https://nsr.rosatom.ru/rassmotrenie-zayavleniy/razresheniya/> (accessed 5 December 2022). Note: Data for 2022 and previous years cannot be accessed on this website now.

ice class of the vessel. Before that, the decision to continue the way along the route was the responsibility of the owner and captain of the vessel²⁷. Thus, it is expected that this will improve the safety of navigation along the NSR and avoid emergencies as it was at the end of 2021.

The reason for these changes was the events of November-December 2021, when 24 vessels were trapped in ice in the eastern part of the NSR. During this period, there was unusually high traffic as well as difficult ice conditions. At that time, only the icebreaker "Vaigach" was available for escort, which means that some vessels were stuck in the ice for several weeks before they received icebreaking support²⁸.

The Main Directorate of the Northern Sea Route, or Glavsevmorput, was established in June 2022. This organisation commenced work on August 1, 2022, as part of Rosatom²⁹. Its responsibilities include ensuring the organisation of icebreaking support and escort of vessels along the routes of navigation on the NSR, the development of routes of navigation of vessels and the implementation of the placement of icebreaking fleet vessels in the water area, taking into account the hydro-meteorological, ice and navigation conditions in the water area, as well as the issuance, suspension, renewal and termination of permits for shipping on the NSR. This also includes amendments to existing permits.

Consequently, the mechanism for issuing permits for the NSR has changed. Now, in addition to issuing permits, it is assumed that they can be suspended, renewed, amended and revoked. These innovations have been introduced in order to improve safety on the route in light of the experience gained³⁰.

Fig. 5 demonstrates a comparative table of the distribution of responsibilities in the field of management of the NSR.

²⁷ GlavSevmorput' budet upravlyat' sudokhodstvom na etom napravlenii [Glavsevmorput will manage shipping in this direction], July 22, 2022. URL: <https://www.kamgov.ru/news/glavsevmorput-budet-upravlat-sudokhodstvom-na-etom-napravlenii-53500> (accessed 1 December 2022).

²⁸ Sanctions have no impact on Rosatom's plans for Northern Sea Route — head. June 18, 2022. URL: <https://tass.com/russia/1468017> (accessed 1 December 2022).

²⁹ Putin podpisal zakon o peredache "Rosatomu" polnomochiy po organizatsii sudokhodstva na SMP [Putin signed a law on the transfer of Rosatom's authority to organize shipping on the NSR]. June 28, 2022. URL: <https://www.interfax.ru/russia/849200> (accessed 1 December 2022).

³⁰ V Rosatome sozdano Glavnoe upravlenie Severnogo morskogo puti [The Main Directorate of the Northern Sea Route has been created in Rosatom]. August, 2022. URL: <https://rosatom-energy.ru/media/rosatom-news/v-rosatome-sozdano-glavnoe-upravlenie-severnogo-morskogo-puti/> (accessed 1 December 2022).

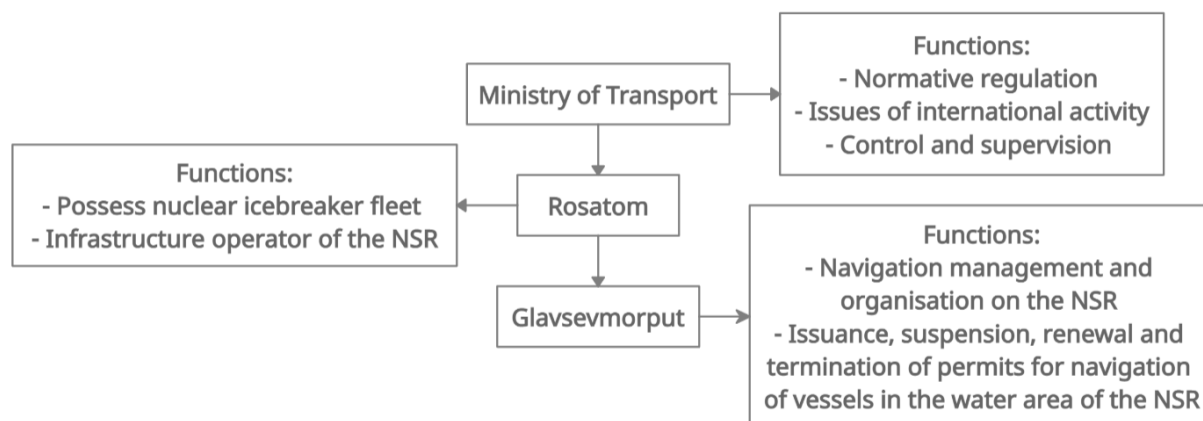


Fig. 5. Delineation of responsibilities in the field of management of the NSR ³¹.

Comparative analysis of the NSR Infrastructure Development Plans of 2019 and 2022

The first NSR Infrastructure Development Plan, hereinafter referred to as the Plan, developed by Rosatom, was promulgated by the Russian government in December 2019 ³², and an updated version of the Plan was published on August 1, 2022 ³³. It is, therefore, necessary to conduct a comparative analysis of these two plans.

The updated version contains 152 different activities compared to 84 activities in the previous Plan. The planned amount of funding is 1.8 trillion roubles. The government and Rosatom expect that by 2035, private investors will invest about 15.6 trillion roubles in the implementation of investment projects forming the cargo base of the NSR, which will provide an increase in the gross product by 28.5 trillion roubles and tax revenues at all levels of the budget system of the Russian Federation of 16.3 trillion roubles ³⁴. Though the government has further expanded sops to domestic investors ³⁵, it seems unrealistic to expect this kind of skewed ratio (1:11) of investment between the state and private companies in a period of economic downturn and political

³¹ V Rosatome sozdano Glavnoe upravlenie Severnogo morskogo puti [The Main Directorate of the Northern Sea Route has been created in Rosatom]. August, 2022. URL: <https://rosatom-energy.ru/media/rosatom-news/v-rosatome-sozdano-glavnoe-upravlenie-severnogo-morskogo-puti/> (accessed 1 December 2022).

³² Rasporyazhenie Pravitel'stva RF ot 21.12.2019 g. № 3120-r "Ob utverzhdenii prilagaemogo plana razvitiya infrastruktury Severnogo morskogo puti na period do 2035 g" [Order of the Government of the Russian Federation as of 21.12.2019 № 3120-r "On approval of the Northern Sea Route infrastructure development plan for the period up to 2035"]. December 30, 2019. URL: <http://government.ru/docs/38714/> (accessed 1 December 2022).

³³ Rasporyazhenie Pravitel'stva Rossiyskoy Federatsii ot 01.08.2022 № 2115-r "Ob utverzhdenii prilagaemogo Plana razvitiya infrastruktury Severnogo morskogo puti na period do 2035 goda" [Decree of the Government of the Russian Federation as of 01.08.2022 № 2115-r "On approval of the attached Plan for the development of the infrastructure of the Northern Sea Route for the period up to 2035"]. August, 2022. URL: <http://static.government.ru/media/files/StA6ySKbBceANLRA6V2sF6wbOKSyxNzw.pdf> (accessed 1 December 2022).

³⁴ Ignatieva A. Pravitel'stvo rasporyadilos' sozdat' glavnoe upravlenie Severnogo morskogo puti [The Government has ordered the creation of the main Directorate of the Northern Sea Route]. August 2, 2022. URL: <https://neftegaz.ru/news/transport-and-storage/745709-pravitelstvo-rasporyadilos-sozdat-glavnoe-upravlenie-severnogo-morskogo-puti/> (accessed 1 December 2022).

³⁵ Kabin rasshiril dostup k l'gotnym kreditam dlya investorov na Dal'nem Vostoke i v Arktike [The Cabinet of Ministers has expanded access to preferential loans for investors in the Far East and the Arctic]. July 7, 2022. URL: https://minvr.gov.ru/press-center/news/kabmin_rasshiril_dostup_k_lgotnym_kreditam_dlya_investorov_na_dalнем_vostoke_i_v_arktike/ (accessed: 01.03.2023).

uncertainty. J.M. Keynes enunciated in his article, written in 1932 during the time of the Great Depression, that the state has to be the prime initiator of recovery³⁶.

At the Eastern Economic Forum in September 2022, it was decided to create a Council of Participants in Shipping on the NSR. This body will be responsible for monitoring the implementation of the 2022 Plan. One of the key tasks of the Council is for the NSR to achieve year-round operation³⁷.

The 2022 version continues the directions of development set by the previous Plan: cargo base, transport infrastructure, shipbuilding, the safety of navigation and control, and the development of navigation. However, unlike the previous Plan, the document has an additional emphasis on creating a joint digital information base for the NSR, which, as expected, will also contribute to the expansion of international cooperation. Table 2 highlights the key features of the two Plans.

Table 2

Comparison between Infrastructure Plans for the development of the NSR (2019–2022)

Section	2022	Section	2019
1	Cargo base	---	---
2	Transport infrastructure	1	Development of the infrastructure of seaports and terminals
		6	Development of aviation and railway infrastructure to ensure cargo transportation along the NSR
3	Cargo and icebreaking fleet	4	Development of the icebreaking fleet
		10	Development of domestic shipbuilding for the purposes of Arctic shipping
4	Safety of navigation on the NSR	2	Development of the rescue and auxiliary fleet
		3	Development of navigation and hydrographic support of navigation along the NSR
		7	Ensuring the safety of navigation and communication along the NSR
5	Navigation management and development of navigation on the NSR	5	Stimulating the development of cargo traffic and international transit shipping in the waters of the NSR, including the construction of marine logistics hubs
		8	Development of energy capacities that ensure the functioning of the infrastructure of the Northern Sea Route and coastal territories
		11	Ensuring environmental safety along the NSR

In general, they demonstrate that according to the tasks reflected in the Plan, the development of the NSR corresponds to the principles of modernisation, introduction of new (including those provided by Roscosmos) technologies for interaction with mining and interested companies,

³⁶ Keynes J.M. The World's Economic Outlook. 2022. URL: <https://www.theatlantic.com/magazine/archive/1932/05/the-worlds-economic-outlook/307879/> (accessed 1 December 2022).

³⁷ Zubov M. Severnyy morskoy put' poluchit 80 novykh ledokolov do 2035 goda [The Northern Sea Route will receive 80 new icebreakers by 2035]. September 7, 2022. URL: <https://www.rzd-partner.ru/wate-transport/news/severnyy-morskoy-put-poluchit-80-novykh-ledokolov-do-2035-goda/> (accessed 1 December 2022).

Russian and foreign participants in the transport market. It is intended for the NSR to act as the engine for the socio-economic growth of the AZRF and Russia.

The main goal for both Plans is to increase cargo turnover along the NSR, to ensure year-round navigation, to develop coastal and port infrastructure, and to develop several key ports (Sabetta, Tiksi, Dixon, etc.). Nevertheless, the 2022 Plan is a necessary update since several projects have progressed or completed viability studies envisaged in the 2019 Plan. The Plan includes some new goals and reformulated objectives (see Table 2). Moreover, it includes preparing a list of critical equipment for import substitution and placing orders for such products.

The federal and regional authorities have been tasked to improve navigation and hydrographic support and safety of navigation on the NSR. This includes developing and implementing meteorological, hydrographic and ice-forecast services. This can be achieved by progress in radio communications and the use of unmanned aerial vehicles for rescue, monitoring and ice reconnaissance. Work is underway to create a unified communication system to notify and prevent emergencies in the waters of the NSR. Marine rescue centres continue to be formed in key ports. Similarly, groups under the Ministry of Emergency Situations are being expanded with the purpose of carrying out rescue measures in case of emergencies [5, Fedorov V.P., pp. 2–3].

However, there are several shortcomings in the plan, which can be explained by current geopolitical realities and the difficulty of allocating funding at the moment. The head of the north-western branch of the International Academy of Transport Y. Chizhkov noted that the 2022 Plan is not really a plan, because it lacks adequate funding, which is envisaged to be provided from extra-budgetary sources. According to Professor A. Pilyasov of the Moscow State University, while the Plan indicates the governments focus, the shortcomings include a continued focus on the European market, lobbyism (some projects have more priority than others regarding state budgetary support) and distinctively inadequate funding for dredging and the river fleet, and lack of detailed plans for either import substitution plan or supporting of small and medium enterprises (SMEs)³⁸. The authors agree with the analysis of these experts but note that delineating priorities to the Plan are inevitable in view of budgetary constraints. Furthermore, the Plan does not seem to have undergone revision in terms of a serious cost-benefit analysis post-implementation of more serious Western sanctions, including price caps on oil and gas, and the mining industry, which will be discussed in detail later.

It is possible that the financing issues may be adjusted during the Plan's execution. For example, at the end of September 2022, an explanatory note to the draft law on the federal budget of Russia for 2023 and the planning period 2024–2025 was announced³⁹. According to this law, in 2023, Russia plans to increase subsidies to Russian shipbuilders by 7.46 billion roubles under the

³⁸ SMP: More Planov [NSR: Sea of Plans]. *Sovezdye Review* #40, a periodical for oil and gas suppliers. 2022. URL: <http://www.sozvezdye.org/sozvezdyereview/digital/7/index.html#p=24> (accessed 27 January 2023).

³⁹ Zakonoproekt № 201614-8 "O federal'nom byudzhete na 2023 god i na planovyy period 2024 i 2025 godov" [Draft Law № 201614-8 "On the Federal Budget for 2023 and for the Planning period of 2024 and 2025"]. September, 2022. URL: <https://sozd.duma.gov.ru/bill/201614-8> (accessed 1 December 2022).

program “Development of shipbuilding and equipment for the development of offshore fields”. Thus, the amount of financing may grow from 17.343 billion roubles to 24.804 billion roubles⁴⁰.

The change in the financing parameters compared to the planned indicators is due to an increase in budget allocations for the development and production of ship equipment in 2023 by 15 billion roubles and by 1 billion roubles in 2024. In addition, in 2025, it is planned to increase budget allocations by 5 billion roubles as a contribution to the authorized capital of the State Transport Leasing Company for leasing and financing the construction of 10 vessels⁴¹.

It is also planned to increase the funding for the NSR project. Thus, it is planned to increase funding by 11.482 billion roubles and by 21.992 billion roubles in 2024–2025⁴². The increase in spending is due to the construction of the nuclear icebreaker “Leader”, the multifunctional vessel for nuclear technological maintenance and the sixth and seventh atomic icebreakers (Russian terminology refers to it as the fifth and sixth of the series since they do not take into account the lead vessel) of the 22220 project⁴³. Thus, within the framework of the NSR project, the government has allocated 24.798 million roubles (2023–2029) for the construction of the main multifunctional nuclear-technological service vessel⁴⁴, as well as 56.612 million roubles (2023–2028) and 61.344 million roubles (2023–2030) for the construction of the 5th and 6th atomic icebreakers respectively of the series project 22220 (total amount is 117.956 million roubles (2023–2030)). However, it should be noted that in both projects, only 50% of funds are going to be allocated from the federal budget, and it is presumed that 50% will be provided by Rosatom since nothing else has been specified in the order⁴⁵.

Thus, it can be inferred that the NSR Infrastructure Development Plan of 2022 caters to some extent for various changes and developments related to financing and difficulties due to the sanctions imposed on Russia. It also demonstrates certain flexibility in the approach of the Russian authorities to the development of the NSR, taking into account current geo-economic realities. For example, the Russian government announced that it would stop the project of the Northern lati-

⁴⁰ Programmu razvitiya sudostroeniya v 2023 g. planiruetsya uvelichit' na 7,5 mlrd rub. [The shipbuilding development program in 2023 is planned to be increased by 7.5 billion rubles]. September 23, 2022. URL: <http://www.morvesti.ru/news/1679/98232/> (accessed 1 December 2022).

⁴¹ Programmu razvitiya sudostroeniya v 2023 g. planiruetsya uvelichit' na 7,5 mlrd rub. [The shipbuilding development program in 2023 is planned to be increased by 7.5 billion rubles]. September 23, 2022. URL: <http://www.morvesti.ru/news/1679/98232/> (accessed 1 December 2022).

⁴² Ibid.

⁴³ Pravitel'stvo odobrilo byudzhetye investicii v stroitel'stvo dvuh atomnyh ledokolov i sudna tekhnicheskogo obsluzhivaniya [The government approved budget investments in the construction of two nuclear icebreakers and a maintenance vessel]. January 3, 2023. URL: <http://government.ru/news/47487/> (accessed 3 January 2023).

⁴⁴ Rasporyazhenie Pravitel'stva RF ot 29 dekabrya 2022 g. № 4321-r [Decree of the Government of the Russian Federation No. 4322-r as of December 29, 2022]. December, 2022. URL: <http://static.government.ru/media/files/aSVDOMz5AHMLzApsGy7guP1RyPEX89gS.pdf> (accessed 2 January 2023).

⁴⁵ Rasporyazhenie Pravitel'stva RF ot 29 dekabrya 2022 g. № 4321-r [Decree of the Government of the Russian Federation No. 4322-r as of December 29, 2022]. December, 2022. URL: <http://static.government.ru/media/files/aSVDOMz5AHMLzApsGy7guP1RyPEX89gS.pdf> (accessed 2 January 2023).

tudinal railway⁴⁶, though the decision to commence the project was taken only in April 2022. However, this project is listed in the NSR Infrastructure Development Plan of 2022. Therefore, it can be stated that the NSR Infrastructure Development Plan of 2022 is a guideline for the development of the NSR. However, due to the current geopolitical and economic situation, changes and progress in the implementation of some projects are possible.

The Plan briefly mentions international cooperation (articles 5.3.1 and 5.3.2). This includes focus areas for cooperation with international countries and businesses towards improving cargo turnover and realisation of measures for improving the image of the NSR as an economically competitive and environmentally sustainable transport route. If we compare it to the 2019 Plan, where it was part of the task of increasing cargo turnover, it now appears as a separate task. However, taking into account the requirements of international shipping and making it an internationally competitive transport corridor present in the 2019 Plan do not figure in the new Plan, thus taking into account the current situation.

Russia's Strategy articulated the need to create a system of state support for the remote regions of the AZRF⁴⁷. The "northern delivery" instrument articulated in the Plan is to be carried out by domestic shipping on the NSR. The government expects that the "northern delivery" will be able to become another driver for the NSR's growth. In particular, a draft federal law on northern import is being formulated, which is slated to be considered by the Russian parliament in early 2023⁴⁸.

Therefore, it can be unequivocally stated that the NSR Infrastructure Development Plan of 2022 is a logical continuation of the Plan of 2019. New tasks have been added to the updated version, and a way has been outlined for the development of existing projects; new priorities have been introduced, taking into account the current geopolitical situation. This responsibility is reinforced by concrete steps to develop transport and rescue infrastructure and hydrographic and navigation support.

The influence of geopolitical and geo-economics factors on the Russian state policy towards the NSR

Some countries, the United States being the main one, do not share Russia's opinion that the NSR is historically a Russian national transport route, for the use of which it is necessary to obtain permission and obey the rules of Russian legislation, which are quite similar to Canadian legis-

⁴⁶ Ostanovka proekta Severnogo shirotnogo khoda udarit po ural'skoy promyshlennosti [Stopping the Northern Latitudinal Passage project will hit the Ural industry]. November 22, 2022. URL: <https://www.nakanune.ru/articles/119887/> (accessed 1 December 2022).

⁴⁷ Ukaz Prezidenta Rossiyskoy Federatsii ot 26.10.2020 g. № 645 [Decree of the President of the Russian Federation as of 26.10.2020 № 645 "On the Strategy for the development of the Arctic Zone of the Russian Federation and ensuring national security for the period up to 2035"]. October, 2020. URL: <http://www.kremlin.ru/acts/bank/45972> (accessed 1 December 2022).

⁴⁸ V Yakutii obsudili puti sovershenstvovaniya dostavki gruzov [Ways to improve cargo delivery were discussed in Yakutia]. September 23, 2022. URL: https://www.korabel.ru/news/comments/v_yakutii_obsudili_puti_overshenstvovaniya_dostavki_gruzov.html (accessed 1 December 2022).

lation on the North-West Passage. Thus, the Russian leadership has sought to maintain a balancing act between the goal to promote the NSR as an international shipping route with the involvement of a wider number of participants to develop cargo turnover and maintain sovereignty over the NSR.

Until recently, Russia tried to attract international participants to the NSR, though it can be argued that it was not as active as China's One Belt–One Road Initiative. However, due to the geopolitical changes that followed after February 2022, the situation has changed, and Russia seems constrained to implement more protectionist measures in consonance with domestic political opinion to maintain tight control over the NSR.

This trend manifested itself after the Crimean crisis of 2014 when the Russian leadership began to introduce a number of measures aimed at limiting the use of foreign tonnage on the NSR. For example, on February 1, 2018, a law came into force that introduced some restrictions for foreign vessels when using the NSR, including cabotage and transportation of oil and gas⁴⁹. However, it may be noted that these are similar to American regulations on the subject⁵⁰, a fact not mentioned by foreign researchers. Despite the introduction of restrictions, this law allowed exceptions for some companies with pre-existing obligations. Also, the law facilitated the procedure of re-registration under the Russian flag.

Further changes followed at the beginning of 2018. The modifications stated that the transportation of hydrocarbons through the NSR should be carried out by vessels made in Russia [1, Moe A., p. 213]. Other categories of vessels must also be made in Russia. The reform was designed to strengthen and improve the positions of Russian shipbuilders. The changes came into force on January 1, 2019.

In August 2019, it was clarified that the need to use Russian vessels does not apply to those ships that were used before the law came into force. However, this restriction has remained for all vessels that will navigate along the NSR after the law's entry into force. This change was partly introduced because there could be problems with Russian companies' fulfilment of obligations in international agreements [1, Moe A., pp. 216–217].

Nevertheless, the introduction of these protectionist measures had several negative consequences. For instance, the introduction of this law has sharply highlighted the problem with Russia's icebreaking fleet. One of the largest Russian companies, Novatek, indicated that in the next few years, to continue the successful transportation of natural gas from the Yamal-LNG project, it will need a new series of LNG tankers Arc-7 class (capable of sailing through the ice of thickness 1.5 metres at a speed of 8–10 knots) for its next project, Arctic LNG-2. At the same time,

⁴⁹ Federal'nyy zakon Rossiyskoy Federatsii ot 27.12.2018 № 525-FZ "O vnesenii izmeneniy v otdel'nye zakonodatel'nye akty Rossiyskoy Federatsii" [Federal Law of the Russian Federation as of 27.12.2018 № 525-FZ "On amending certain legislative acts of the Russian Federation"]. December, 2018. URL: <http://extwprlegs1.fao.org/docs/pdf/rus183299.pdf> (accessed 1 December 2022).

⁵⁰ Cargo Preference FAQs. 2020. October 7, 2022. URL: <https://www.maritime.dot.gov/ports/cargo-preference/frequently-asked-questions-faqs-cargo-preference> (accessed 1 December 2022).

LNG tankers have never been built in Russia [2, Moe A., p. 216]. Thus, Russia faced the question of creating an icebreaking and cargo fleet at the expense of its own national capacities.

Most orders for new ships were placed on the Zvezda shipyard at Bolshoi Kamen in the Far East. However, private companies, such as Novatek, stipulated that the cost of icebreakers should be equal to the cost of the same icebreakers produced at Korean shipyards — about \$315 million per icebreaker. The Zvezda shipyard predicted that the costs would be several times higher (about twice as high — almost \$700 million). Therefore, Novatek expected subsidies to cover the difference in costs⁵¹.

In this regard, the Russian leadership has introduced state support measures aimed at stimulating its own ship production for the renewal and development of its own national Arctic fleet. However, geopolitical changes and sanctions imposed on Russia may hinder plans to build icebreakers. For example, during the construction of one of the icebreakers of Project 22220, namely Yakutia, there were problems with the supply of steam turbine units. Unfortunately, Russian manufacturers could not supply the necessary parts. Therefore, it is likely that the deadline for the icebreaker will be shifted⁵², notwithstanding statements made by Rosatom⁵³.

The Decree of the Government of the Russian Federation “On approval of the rules of navigation in the waters of the Northern Sea Route” was promulgated on September 18, 2020. This introduced a restrictive regime for vessels entering the waters of the NSR (i.e., vessels need to obtain permission to use the NSR in advance), similar to Canada. Of course, this caused an adverse reaction from several countries, primarily the United States, since there are divergent views on this aspect. Several countries in the world, including China and India, follow a legal regime where it is mandatory for warships and government vessels to seek permission for passage through territorial waters, notwithstanding the provision of Article 236 of UNCLOS. Nevertheless, this Resolution can also be considered a continuation of the Russian policy to ensure its national security. Thus, the Russian leadership introduces protectionist measures to a certain extent to protect the NSR as a national route and to develop its own shipbuilding facilities.

The latest Maritime Doctrine of the Russian Federation (2022) emphasises the Arctic and the NSR as vital sea areas linked with the security of the Russian Federation⁵⁴. Despite all the above-mentioned legislative measures, there was an unresolved issue about the right of passage

⁵¹ Vedeneeva A., Barsukov Yu., Dyatel T. Rossiyskiy gazovoz nagruzili tsenoy [Russian gas carrier loaded with price]. February 12, 2019. URL: <https://www.kommersant.ru/doc/3881485> (accessed 1 December 2022).

⁵² Sevmorput' mozhet "ottyanut" do 15% gruzopotoka iz Suetskogo kanala — Rosatom [The Northern Sea Route can "take away" up to 15% of cargo traffic from the Suez Canal — Rosatom]. October 13, 2022. URL: <https://fomag.ru/news-streem/sevmorput-mozhet-ottyanut-do-15-gruzopotoka-iz-suetskogo-kanala-rosatom/> (accessed 1 December 2022).

⁵³ Sanctions have no impact on Rosatom's plans for Northern Sea Route — head. June 18, 2022. URL: <https://tass.com/russia/1468017> (accessed 1 December 2022).

⁵⁴ Ukaz Prezidenta RF ot 31.07.2022 g. № 512 «Ob utverzhdenii Morskoy doktriny Rossiyskoy Federatsii» [Decree of the President of the Russian Federation as of 31.07.2022 No. 512 "On the approval of the Maritime Doctrine of the Russian Federation"]. July, 2022. URL: <http://static.kremlin.ru/media/events/files/ru/xBBH7DLORicfdtdWPoI32UekiLMTAycW.pdf> (accessed: 01.03.2023).

through the internal waters of the NSR for foreign warships and state-owned vessels⁵⁵. Therefore, in December 2022, the President signed the law restricting the passage of foreign vessels along the Northern Sea Route. According to this law, foreign warships and other government vessels may only enter the internal sea waters in the waters of the NSR without the purpose of entering a port or a naval base by permission requested through diplomatic channels no later than 90 days before the intended call⁵⁶. The bill includes a provision that allows the immediate suspension of the passage of foreign ships and other state vessels by transmitting navigation warnings.

Summarising, geopolitical changes are constraining Russia to resort to more protectionist measures against the NSR to maintain total sovereignty over it. The Western sanctions imposed on Russia will lead to a forced restructuring of shipyards to meet the deficiencies in vessels contracted with foreign shipyards.

Due to these factors, Russia is experiencing difficulties in expanding its icebreaking fleet, and attracting foreign investors and shipping companies to the NSR is also becoming more complicated. However, state support measures are designed to smooth out these problems. Thus, it can be expected that in the medium-long term, these shortcomings will be surmounted subject to the availability of funding, and only then will Russia achieve the planned indicators for the state of the icebreaker fleet and cargo turnover on the NSR.

Influence of sanctions on the NSR and related projects

President Vladimir Putin remarked that, despite attempts of external pressure, the total cargo turnover of Russian seaports practically remained the same over the seven months of this year, remaining at the same level as a year earlier. Thus, according to the President, “the total cargo turnover of Russian seaports for seven months of this year has practically not decreased, remained at the same level as a year earlier — it is about 482 million tons of cargo. Last year there were 483 million — almost the same”⁵⁷.

Rosatom Director General A. Likhachev also noted this trend. However, according to him, Western sanctions against Russia did not affect the state company’s plans to develop the NSR⁵⁸. Nevertheless, it should be noted that several infrastructure projects of the NSR, especially in the field of resource extraction and fleet construction, were carried out jointly with foreign compa-

⁵⁵ Federal'nyy zakon ot 05.12.2022 g. № 510-FZ "O vnesenii izmeneniy v Federal'nyy zakon «O vnutrennikh morskikh vodakh, territorial'nom more i prilozhashchey zone Rossiyskoy Federatsii" [Federal Law No. 510-FZ as of 05.12.2022 "On Amendments to the Federal Law "On Internal Sea Waters, Territorial Sea and Adjacent Zone of the Russian Federation"]. November, 2022. URL: <http://www.kremlin.ru/acts/bank/48595> (accessed 1 December 2022).

⁵⁶ Ibid.

⁵⁷ Vneshnee davlenie ne povliyalo na obshchiy gruzooborot rossiyskikh portov [External pressure did not affect the overall cargo turnover of Russian ports. Russian]. September 7, 2022. URL: <https://seanews.ru/2022/09/07/vneshnee-davlenie-ne-povliyalo-na-obshhij-gruzooborot-rossiyskikh-portov/> (accessed 1 December 2022).

⁵⁸ Zadera S. Glava Minvostokrazvitiya Chekunkov: Vse kompanii podtverdili obyem gruzopotokov po Sevmorputi do 2035 goda [Minvostokrazvitiya Chekunkov: All companies have confirmed the volume of cargo flows along the Northern Sea Route until 2035]. September 29, 2022. URL: <https://rg.ru/2022/09/29/reg-dfo/glava-minvostoka-vse-kompanii-podtverdili-obem-gruzopotokov-po-sevmorputi-do-2035-goda.html> (accessed 1 December 2022).

nies. Therefore, the exit of one of the investors or technology partners may seriously impact the project implementation process.

Thus, Novatek announced the delay of its Arctic LNG-2 project to produce liquefied natural gas (LNG) in the Arctic until at least the end of 2023. The company was supposed to finish the first stage (6.6 million tons of LNG) in the summer of 2022 and start producing LNG in early 2023⁵⁹. After the sanctions were imposed, most foreign companies left the project: France's Total, Germany's Linde and Siemens, and Japan's Mitsui. This situation is also likely to affect stages 2 and 3 of the project, which has a projected capacity of 19.8 million tons.

As a way out of this situation, Novatek is trying to find a replacement for these investors among Russian companies. So, the French company Technip was replaced by the Russian Nipigaz. To offset the loss of investors, a consortium of Russian banks will provide additional financing and guarantees for loans for almost 10 billion Euros. In addition, the Arctic LNG 2 project received additional financing from Asian investors: Chinese banks provided 2.5 billion Euros, and a Japanese bank pledged 2.5 billion Euros⁶⁰.

In addition, the South Korean company Daewoo Shipbuilding and Marine Engineering cancelled the order for the construction of LNG tankers of ice class for the transportation of LNG. Before the sanctions were imposed, the South Korean company had to build 35 LNG vessels for Russian companies and partners of Arctic LNG projects⁶¹. These are reflected in Table 3. The exact status of the balance orders has not been publicly confirmed by DSME.

Table 3

South Korean shipyards, building 35 LNG vessels for Russian customers⁶²

South Korean shipyard	Russian customer	Vessels being built
Hyundai Sambo Heavy Industries	Sovcomflot (Total Energies charterer)	3
Daewoo Shipbuilding & Marine Engineering	Sovcomflot (Novatek charterer)	3
Daewoo Shipbuilding & Marine Engineering	Mitsui OSK Lines (Novatek charterer)	4
Daewoo Shipbuilding & Marine Engineering	Mitsui OSK Lines/COSCO (Novatek charterer)	3
Samsung Heavy Industries	Sovcomflot	3
Samsung Heavy Industries	Sovcomflot/Nippon Yusen	4
Samsung Heavy Industries/Zvezda	Sovcomflot	5
Samsung Heavy Industries/Zvezda	Smart LNG [Sovcomflot/Novatek JV]	10

⁵⁹ Humpert M. Western Sanctions Delay Opening of Arctic LNG 2 Project by One Year. September 9, 2022. URL: <https://www.highnorthnews.com/en/western-sanctions-delay-opening-arctic-lng-2-project-one-year> (accessed 1 December 2022).

⁶⁰ Arctic LNG 2 secures project financing lifeline. November 30, 2022. URL: <https://www.upstreamonline.com/lng/arctic-lng-2-secures-project-financing-lifeline/2-1-1109454> (accessed 1 December 2022).

⁶¹ Russia's Arctic gas ambitions at risk as sanctions imperil LNG icebreakers. 2022. URL: <https://www.ft.com/content/2164d1e3-ee68-43ab-8c3d-61bd6ccde239> (accessed 1 December 2022).

⁶² *Ibid.*

In this regard, the Russian shipyard Zvezda is now affected by great expectations. However, it should be kept in mind that the shipyard already has many orders, and it needs to be observed whether Zvezda will be able to handle the increasing volumes of orders and provide icebreakers in the required time. It is also relevant to mention that Novatek received an exemption from the Russian Government to order parts of ice-class LNG tankers from a foreign company to speed up the process of putting the project into operation. At the same time, Zvezda can produce only five vessels per year, which may not be enough to satisfy the requests of all customers⁶³. The Head of Marine Operations Headquarters at Glavsevmorput V. Arutyunyan also declared that there was a shortage of icebreakers for the NSR⁶⁴.

Chinese shipbuilders might be interested in taking their place and getting contracts. They may be able to take over the production of about eight tankers per year. At the same time, Chinese firms are clearly apprehensive of secondary sanctions from the West already applied in the case of chips⁶⁵. Therefore it may not be appropriate to have great expectations for Chinese partnership. In this respect, Russia will also need to overcome its inherent apprehensions of dependency on China, which have been most often articulated by academics, and in rare cases — by officials⁶⁶.

Portfolio of orders for vessels of the Arctic Fleet

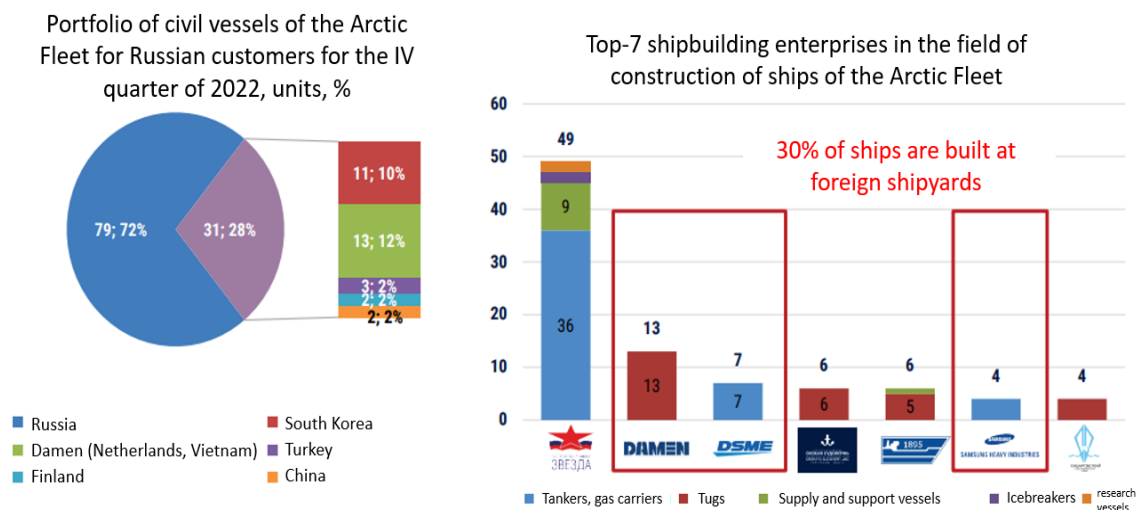


Fig. 6. Shipbuilding orders of the Russian Arctic fleet — dependency upon foreign shipyards⁶⁷.

⁶³ Humpert M. Western Sanctions Delay Opening of Arctic LNG 2 Project by One Year. September 9, 2022. URL: <https://www.highnorthnews.com/en/western-sanctions-delay-opening-arctic-lng-2-project-one-year> (accessed 1 December 2022).

⁶⁴ Main Directorate of NSR warns about lack of icebreakers. October 24, 2022. URL: <https://en.portnews.ru/news/337461/> (accessed 1 December 2022).

⁶⁵ Chinese processors slow down chips to dodge US sanctions. November 8, 2022. URL: <https://www.ft.com/content/7df13a5e-84e8-44af-b0d3-3e3efa6a8671> (accessed 1 December 2022).

⁶⁶ Yun S. The Northern Sea Route: The Myth of Sino-Russian Cooperation, 2017. URL: <https://www.stimson.org/wp-content/files/file-attachments/Stimson%20-%20The%20Northern%20Sea%20Route%20-%20The%20Myth%20of%20Sino-Russian%20Cooperation.pdf> (accessed 1 December 2022).

⁶⁷ INFOLine-Analitika na osnove bazy dannykh «Sudostroitel'nyye zakazy na verfyakh Rossii» [INFOLine-Analitika based upon the database “shipbuilding orders on Russian shipyards”] Bumistrov M.B. Razvitiye Arkticheskogo flota Rossii v

Iran and Turkey could be ready to cooperate with Russia in shipbuilding⁶⁸. At the same time, Iran, which has been under sanctions for many years, will not be so concerned about secondary sanctions from the West compared to Turkey. This means that cooperation between these two countries is possible in the future. Moreover, it should be kept in mind that after the introduction of Western sanctions, the Russian financial system was cut off from the SWIFT system. However, the question remains of how Russian companies will be able to pay for fulfilling orders with foreign shipyards unless that particular country accepts trading in national currencies. The dependence on foreign shipyards is approximately 30% and can only be overcome by concerted state support because in the present geopolitical scenario Russia is unlikely to seek foreign partnerships than in sourcing components (see Fig. 6).

Portfolio of orders for vessels of the Arctic Fleet

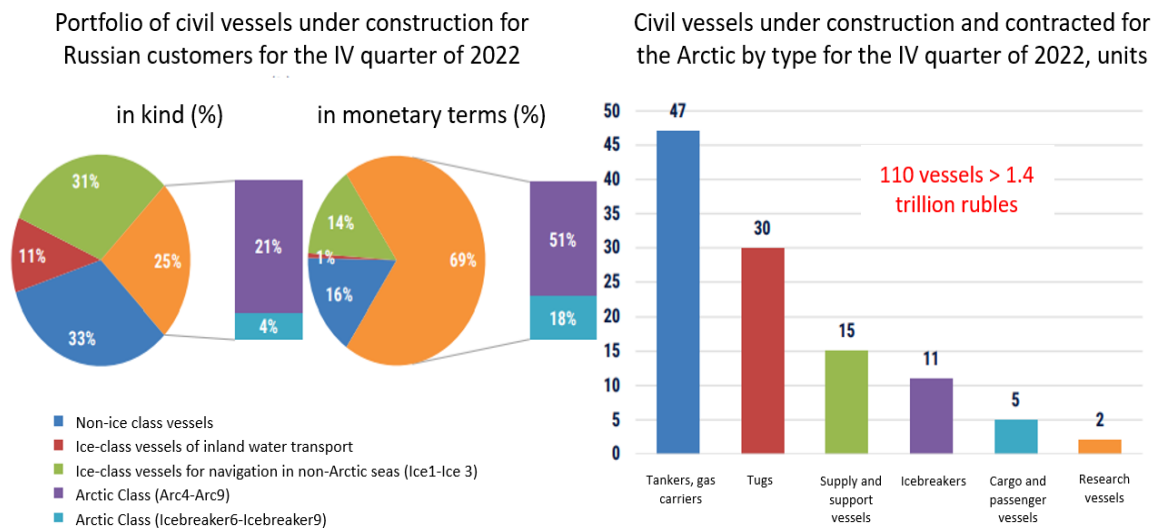


Fig. 7. Shipbuilding orders of the Russian Arctic fleet⁶⁹.

Thus, the lack of vessels of the appropriate ice classes is likely to affect the implementation of cargo transportation plans for the NSR (see Fig. 7 and Table 4) because of dependency and lack of indigenous capacity or technology. The Accounts Chamber of the Russian Federation had already cautioned, “The analysis has shown that the indicators of the functioning of infrastructure facilities in terms of increasing cargo traffic along the Northern Sea Route to 80 million tons may not be met in time”⁷⁰.

novoy real'nosti [Development of the Russian Arctic fleet under new reality]. Lecture at the International Forum “Arctic: Today and Future in Saint Petersburg. 09 December 2022 (in Russian).

⁶⁸ Rossiya i Iran gotovy sovместno stroit' krupnotonnazhnyy flot na iranskikh verfyakh [Russia and Iran are ready to jointly build a large-tonnage fleet at Iranian shipyards]. November 1, 2022. URL: <https://portnews.ru/news/337937/> (accessed 1 December 2022).

⁶⁹ INFOLine-Analitika na osnove bazy dannykh «Sudostroitel'nyye zakazy na verfyakh Rossii» [INFOLine-Analitika based upon the database “shipbuilding orders of Russian shipyards”] Bumistrov M.B. Razvitiye Arkticheskogo flota Rossii v novoy real'nosti [Development of the Russian Arctic fleet under new reality]. Lecture at the International Forum “Arctic: Today and Future in Saint Petersburg. 09 December 2022 (in Russian).

⁷⁰ Schetnaya palata: rost gruzopotoka po smp do 80 mln tonn mozhet ne byt' dostignut k 2024 godu [Accounts Chamber: growth of cargo traffic along the SSR up to 80 million tons may not be achieved by 2024]. January 14, 2020. URL:

Table 4

Status of Arctic transport fleet shipbuilding⁷¹

Company	Project	Type of vessel	Amount	DWT, thousand tons	Ice class	Shipyard	Year	Status
Novatek	Yamal LNG	Gas carrier	15	96.7	Arc7	DSME (South Korea)	2017-2019	Completed
	Arctic LNG 2	Gas carrier	(15+6)/8	98.5	Arc7/Arc4	LLC "SSK Zvezda" (15 units)	2023-2025	<i>Construction status not available. Likely to be delayed.</i>
						DSME (6 units), 3 units — cancelled	2023	
						DSME (4 units), Samsung HI (4 units)	2023-2024	
	Ob LNG	Gas carrier	5	98.5	Arc7	LLC "SSK Zvezda"	-	Under discussion
	Arctic LNG 1	Gas carrier	15	98.5	Arc7	-	-	Under discussion
	Arctic transshipment	Tugboat	10	0.1	Arc4	Damen	2023	Construction
Gazprom	Novoportovskoe field	Tanker	7	41.5	Arc7	Samsung Hi, South Korea	2016-2019	Completed
Rosneft'	Vostok Oil	Tanker	10	120	Arc7	LLC "SSK Zvezda" (10 tankers)	2024-2027	A contract has been signed
		Tankers, tugs	40	-	-	-	-	-
Severya Zvezda	Syrasaydayskoe field	Bulk carrier	40	110-120	Arc5	-	2027-2030	Under discussion
		LNG ice-breaker	2	-	-	-	-	
Nornikel	MMC Norilsk Nickel	Container ship	5	18.1	Arc7	1 unit — Aker Yards (Finland); 4 units — Wadan Shipyards MTW (Germany)	2006-2009	Completed
		Tanker	1	18.9	Arc7	Nordic Yards Wismar (Germany)	2011	
		Icebreaker	1+1	-	-	1 unit — Helsinki Shipyard Oy (Finland)	2024? 2027-2030	
KAZ Minerals	GDK Baimskaya	Bulk carrier	3	40	Arc6/Arc7	-	2027-2028	Under discussion
		Icebreaker	1	-	-	-	2027-2028	

<https://nao24.ru/natsproekt/19040-schetnaya-palata-rost-gruzopotoka-po-smp-do-80-mln-tonn-mozhet-ne-byt-dostignut-k-2024-godu.html> (accessed 1 December 2022).

⁷¹ Green – built and under construction in Russia. Red – were built or are planned to be built at foreign shipyards. Modified by the authors based upon Western sources mentioned in Table 5 and INFOLine-Analitika based upon the database "shipbuilding orders on Russian shipyards". Bumistrov M.B. Razvitiye Arkticheskogo flota Rossii v novoy real'nosti [Development of the Russian Arctic fleet under new reality]. Lecture at the International Forum "Arctic: Today and Future in Saint Petersburg. 09 December 2022 (in Russian).

		Floating power unit	2+2	9.6	-	Wison (Nantong) Heavy Industry (2 units)	2025-2026	A contract has been signed
DP World	Transit	Container ship	9	6000 TEU	Arc7	-	4 units - ???	Under discussion since 2021. <i>Unlikely to materialise in the present scenario.</i>

The need for dredging is included in the Plan for the development of the NSR. However, contractors from four big European dredging companies (Van Oord, Boskalis, Jan de Nul, DEME), which provided more than 98% of dredging in Russian ports, have refused to participate in Russian Arctic infrastructure projects since February 2022. The capacities of the domestic dredging fleet for the implementation of Arctic projects are insufficient⁷². Thus, Russia will also need to create its production facilities and technologies in this vital area.

The impact of Western sanctions on important projects of the AZRF related to the transportation of cargo on the NSR is presented in Table 5.

Table 5

Influence of Western sanction on the Russian projects linked to the NSR

No	Project	Planned indicator by the year 2024 (share of target cargo to be carried on the NSR) / 2030 / 2035 or vital for year-round navigation	Sanctions	Consequences	Solution
1	Atomic Icebreakers	Vital for year-round navigation	1. Icebreakers — Project 22220 (LK-60). The commissioning of atomic icebreakers of project 22220 "Yakutia" and "Chukotka" is scheduled for 2024 and 2026. In addition, a contract with the Baltic shipyard for the construction of two more vessels of the same project for delivery in 2028 and 2030 may be signed as funds have been allocated. Presently, Arctic, Sibir and Ural are in service. The first of the class Arctic took seven years to be operationalised. There have been slippages in the project due to delay in supply of equipment including those earlier envisaged from Ukraine, and also from Finland. The next icebreaker — Yakutia — is planned to be commissioned in 2024, Chukotka — in 2026.	Dmitri Medvedev noted that the delivery of icebreakers is not as per the designated schedule due to difficulties in supply of equipment, inadequate qualified personnel and lack of funding. In addition, there is a problem with supply of critical equipment for reserve power supply and propulsion from Finnish firm, 'Wartsila'.	Focus on import substitution of all equipment.

⁷² Severnyy morskoy put': chto den' gryadushchiy nam gotovit? [Northern Sea Route: what does the coming day have in store for us?]. September 19, 2022. URL: https://www.korabel.ru/news/comments/severnyy_morskoy_put_chno_den_gryadushchiy_nam_gotovit_2.html (accessed 1 December 2022).

			<p>Their localization, according to the director of the consulting company 'Gekon' Mikhail Grigoriev, should reach 96%. The vessels are being built at the Baltic Shipyard.</p> <p>2. Icebreakers — Project 10510 (LK-100YA). The first of the Leader-class icebreakers (total 3 planned) was launched in 2021 at the Zvezda shipyard, Bolshoy Kamen, Primorye territory near Vladivostok. Delivery is likely to be delayed beyond the planned 2027 due to some of the equipment being required from abroad. Earlier it had been announced that they would be ready by 2024-25.</p>		
2	Diesel icebreakers	Critical for year-round navigation	Finnish firms have declined to participate in the project.		Focus on indigenous shipbuilding and import substitution.
3	Auxiliary ships for search and rescue and support	Critical for year-round navigation	Dutch firm Damen has revoked existing contracts. Ships ready in China are also not going to be delivered because of ongoing sanctions.		Focus on indigenous shipbuilding and import substitution.
4	Dredging	Critical for allowing passage of larger ships and to maintain existing ports			Focus on indigenous shipbuilding and import substitution.
5	Vostok Oil	30 (37.5%) / 100 (66.67%) / 100 (45.45%)	<p>Trafigura's stake in Vostok Oil, including bank debt, was acquired by Nord Axis Limited, an independent trading company registered in Hong Kong.</p> <p>Vitol Group announced its intention to withdraw from the Vostok Oil project and completely stop trading in Russian oil and petroleum products by the end of 2022. In addition, the oil and gas industry has been hit by fresh EU, US and Japanese sanctions. The main oilfield service Companies" (France's Schlumberger, America's Halliburton and Baker Hughes, Switzerland's Weatherford) have exited Russia.</p>	The loss of significant export markets and the need to find new ones. The plan of 30 million tons by 2024 seems unlikely to be achieved.	Search for new investors mainly in Asian countries. Search for new export markets.
6	Yamal LNG	19.7 (24.63%) / 19.5 (13%) / 19.5 (8.86%)	Baker Hughes recalled engineers and all shipments of equipment for joint venture projects in Russia.	Possible problems with equipment maintenance. The threat of project disruption.	The serviceability of equipment may decrease, which could lead to an increase in cost price for hydrocarbons. Russia needs to create its own capacities for the construction of large-capacity LNG plants.
7	Arctic LNG 2	12.6 (15.75%) / 21.4 (14.27%) / 21.4 (9.73%)	Exit of French Total, German Linde, Siemens and Japanese Mitsui from the project. It is reported that Chinese manufacturers have stopped	Shift of stage 1 of project implementation dates by at least 1 year. The threat of disruption or serious	Replacing the French Technip with the Russian Nipigaz. Possibility of transfer of contracts for the

			production of modules for the project. Refusal of Daewoo Heavy Industries to comply with the order for the construction of icebreakers for the transportation of LNG due to non-fulfilment of payment.	delays in the implementation of the complete project earlier scheduled to reach full capacity by 2026. In addition, lack of icebreakers for LNG transportation. Two LNG hubs at Murmansk and Kamchatka: were planned by Novatek in 2020. The current status of the order placed on South Korean DSME is not known.	construction of LNG ice class tankers to the Russian shipyard "Zvezda". Obtaining additional financing from the Russian bank Sberbank.
8	Norilsk Nickel	0.96 (1.2%) / 1.08 (0.72%) / 1.08 (0.49%)	The sanctions that the UK authorities imposed on June 29, 2022 against the largest co-owner (owns almost 36%) and the president of Norilsk Nickel, Vladimir Potanin, do not affect the company itself. In January 2023, the company reported a delay of at least two years in certain projects.		Norilsk Nickel and Rosatom have abandoned the idea of building a dual-fuel icebreaker that could run on both diesel and LNG.
9	Sakhalin 1	There is no share allocated to this project in the Plan.	ExxonMobil's exit from the project.	Investor loss and possible reduction of traffic on the NSR.	Vladimir Putin signed a decree on the creation of the Russian operator of the Sakhalin-1 project.

Compiled on the basis of:

1. Rasporyazhenie Pravitel'stva Rossiyskoy Federatsii ot 01.08.2022 № 2115-r "Ob utverzhdenii prilagaemogo Plana razvitiya infrastruktury Severnogo morskogo puti na period do 2035 goda" [Decree of the Government of the Russian Federation as of 01.08.2022 № 2115-r "On approval of the attached Plan for the development of the infrastructure of the Northern Sea Route for the period up to 2035"]. August, 2022. URL: <http://static.government.ru/media/files/StA6ySKbBceANLRA6V2sF6wbOKSyxNzw.pdf> (accessed 1 December 2022).
2. Trafigura vyshla iz "Vostok oyla", prodav 10% v proekte Nord Axis Limited [Trafigura withdrew from Vostok Oil, selling 10% in the Nord Axis Limited project]. July 13, 2022. URL: <https://tass.ru/ekonomika/15204643> (accessed 1 December 2022).
3. Baker Hughes otzyvaet inzhenerov s proektov «Yamal SPG» i «Sakhalin-2» [Baker Hughes withdraws engineers from the Yamal LNG and Sakhalin-2 projects]. June 16, 2022. URL: <https://www.bfm.ru/news/502380> (accessed 1 December 2022).
4. Potanin rasskazal o vliyani personal'nykh sanktsiy na «Normikel» [Potanin spoke about the impact of personal sanctions on Norilsk Nickel]. July 5, 2022. URL: <https://www.rbc.ru/business/05/07/2022/62c32d3c9a7947181d8e9978> (accessed 1 December 2022).
5. Iz-za sanktsiy novyy ledokol "Normikelya" budet bez SPG-dvigatelya [Due to sanctions, the new Norilsk Nickel icebreaker will be without an LNG engine]. July 22, 2022. URL: <https://www.nakanune.ru/news/2022/07/22/22667515/> (accessed 1 December 2022).
6. Aliferova A.V. V. Putin podpisal ukaz o sozdanii rossiyskogo operatora proekta Sakhalin-1 [Putin signed a decree on the creation of the Russian operator of the Sakhalin-1 project]. October 7, 2022. URL: <https://neftegaz.ru/news/gosreg/753652-v-putin-podpisal-ukaz-o-sozdanii-novogo-operatora-proekta-sakhalin-1/> (accessed 1 December 2022).
7. Godovannik L. Baltiyskiy zavod nachinaet sudit'sya s finskoy Wartsila za 5 mln evro [Baltic plant begins to sue Finnish Wartsila for 5 million euros]. November 24, 2022. URL: <https://vedomosti-spb.ru/business/articles/2022/11/23/951830-baltiiskii-zavod-trebuuet-wartsila> (accessed 1 December 2022).
8. Kaverin D. Zampred SB Medvedev zayavil o slozhnostyakh pri stroitel'stve i sdache v ekspluatatsiyu ledokolov [Deputy Chairman of the Central Bank Medvedev said about the difficulties in the construction and commissioning of icebreakers]. November 18, 2022. URL: <https://www.gazeta.ru/social/news/2022/11/18/19068289.shtml> (accessed 1 December 2022).
9. Zaderzhki i uspekhi. Programma stroitel'stva ledokolov pr. 22220 / LK-60YA [Delays and successes. Icebreaker construction program 22220 ave. / LK-60YA]. November 28, 2022. URL: <https://topwar.ru/205744-zaderzhki-i-uspehi-programma-stroitelstva-ledokolov-pr-22220-lk-60ja.html> (accessed 1 December 2022).
10. Russia launches construction of world's most powerful nuclear icebreaker. July 6, 2021. URL: <https://arctic.ru/infrastructure/20210706/996250.html> (accessed 1 December 2022).
11. Russia to Build Three Nuclear-Powered Project 10510 Leader Icebreakers by 2024-2025. September 6, 2017. URL: <https://navyrecognition.com/index.php/naval-news/naval-news-archive/2017/september-2017-navy-naval-forces-defense-industry-technology-maritime-security-global-news/5551-russia-to-build-three-nuclear-powered-project-10510-leader-icebreakers-by-2024-2025.html> (accessed 1 December 2022).
12. Humpert M. France's Technip to Complete Exit from Arctic LNG 2 Project in First Half of 2023. October 25, 2022. URL: <https://www.highnorthnews.com/en/frances-technip-complete-exit-arctic-lng-2-project-first-half-2023> (accessed 1 December 2022).
13. Humpert M. South Korean DSME Cancels Contract for Novatek Arctic LNG Carriers. May 27, 2022. URL: <https://www.highnorthnews.com/en/south-korean-dsme-cancels-contract-novatek-arctic-lng-carriers> (accessed 1 December 2022).

14. Humpert M. Novatek Orders World's Largest Floating LNG Storage Unit for Arctic. June 10, 2020. URL: <https://www.highnorthnews.com/en/novatek-orders-worlds-largest-floating-lng-storage-unit-arctic> (accessed 1 December 2022).
15. Petrova N. New sanctions against Russia: What will they change, January 27, 2023. URL: <https://news.ru/economics/novye-sankcii-protiv-rossii-cto-oni-izmenyat/> (accessed 27 January 2023).
16. Expert.ru. Norilsk Nickel to postpone implementation of major projects due to problems with suppliers. January 24, 2023. URL: <https://expert.ru/2023/01/24/norilskiy-nikel-otlozhit-realizatsiyu-krupnykh-proyektov-iz-za-problem-s-postavschikami/> (accessed 27 January 2023).
17. The Diplomat. Amid Ukraine war Russia's Northern Sea Route turns East. January 24, 2023. URL: <https://thediplomat.com/2022/12/amid-ukraine-war-russias-northern-sea-route-turns-east/> (accessed 27 January 2023).
18. Vedomosti. Litova A. Rossiya aktivno obnovlyayet svoj flot: k 2035 godu planiruetsya postroit' bolee 1000 novyh sudov [Russia is actively updating its fleet: it is planned to build more than 1,000 new vessels by 2035]. December 15, 2022. URL: https://www.vedomosti.ru/industry/infrastructure_development/articles/2022/12/15/955368-rossiya-aktivno-obnovlyayet-flot (accessed 28 January 2023).

Considering all the above-mentioned difficulties, Russia is facing the challenging task of adapting to the new conditions since the post-2014 sanctions did not affect shipbuilding and a broad spectrum of high-technology areas as is presently the case. The main difficulties now are the issue of financing and technology [19, Bhagwat J., p. 95–96]. However, Russia has commenced efforts to neutralise Western sanctions' impact on both counts.

The government formed a list of 162 critical projects, including shipbuilding, metallurgy, machine tool and heavy engineering (linked to the NSR) that require indigenous capacity. The project will require a total of 5.2 trillion roubles (about 4% of the current Russian GDP), of which 123.6 billion roubles is needed until 2030. The budget for 2023 provides 5 billion roubles for this process⁷³. It is intended to achieve this with offset contracts (including obligations of counter-investment), and increased state support for the most efficient business enterprises. However, the federal budget of Russia for 2023 assumes a deficit of 2.9 trillion roubles. At the same time, it is planned to offset this deficit from the National Welfare Fund in the next three years⁷⁴. The deficit is due to the need to fulfil the directives of the President of the Russian Federation, among which is to ensure financing for the development of the NSR. Thus, the most vital projects for developing the NSR are expected to receive funding. However, it should be kept in mind that this fund will reach its lowest level for the last 20 years.

The strain on the exchequer of the Russian Federation will be further exacerbated by spending on defence and national security and law enforcement, where expenditure is one-third of all budgetary expenses, and this expenditure is more than that on the national economy (3.5 trillion roubles, or 12%) and national projects (2.9 trillion roubles). Furthermore, about 23% of the budget in 2023 will be related to closed or secret expenditure (most probably related to strategic aspects of national defence), which was at an average of 17%⁷⁵. This effectively means that just

⁷³ Pravitel'stvo sformirovalo pul proyektov po importozameshcheniyu na 5,2 trln rubley [The government has formed a pool of import substitution projects worth 5.2 trillion roubles]. October 9, 2022. URL: <https://www.vedomosti.ru/economics/articles/2022/10/10/944595-vlasti-sformirovali-pul-proektov> (accessed 27 January 2022).

⁷⁴ Chto nuzhno znat' o byudzhete na 2023 god [What you need to know about the draft budget for 2023]. September 29, 2022. URL: <https://tass.ru/ekonomika/15898737> (accessed 1 December 2022).

⁷⁵ V otkrytoy chasti rossiyskogo byudzheta na 2023 god ostalos' 77% raskhodov [In the open part of the Russian budget for 2023, 77% of expenditures remain]. September 29, 2022. URL: <https://www.vedomosti.ru/economics/articles/2022/09/29/943018-v-otkritoi-chasti-byudzheta> (accessed 27 January 2022).

over 50% of the budget is related to all aspects of national security. Therefore, this cannot be sustained for a prolonged period without consequent effects on other sectors of the economy⁷⁶ and, more importantly, the living standards of people⁷⁷. It may be noted as per the International Monetary Fund, the Russian economy contracted by 2.2% in 2022 due to the combined effect of Western sanctions post the special military operation in Ukraine. This negative growth may reduce to 2% in 2023⁷⁸.

Consequently, it is possible that some projects will be postponed or will not be implemented at all. It may be therefore advisable to seek other sources of funding such as the New Development Bank, BRICS and funding from citizens taking into account the experience of the Panama and Suez Canal expansion projects [20, Bhagwat J., 94–99]. This may also encourage the involvement of citizens and foster patriotism [21, Zazou Z.A., 8–21].

Regarding Russia's technological lag, which also impacts the development of NSR projects, it is necessary to note Russia's attempts to establish cooperation with non-Western countries, among which China is the most promising ally. China may cooperate with Russia to implement projects for the development of the NSR because the NSR is a way to diversify energy imports for China. However, Russia has not permitted investment in NSR infrastructure or related transport projects due to its focus on security and supporting its own industry [22, Bhagwat J., p. 85–88]. It is also inherently cautiousness of Chinese involvement as an operator, a prerequisite for any successful public-private partnership project with a foreign investor. This is supported by the analysis of the shelved Belkomur railway project [23, Moe A., 29–31].

Nevertheless, it should be remembered that China is concerned about the possibility of secondary sanctions when continuing cooperation with Russia. Therefore, it seems that Russian-Chinese cooperation will be limited. In this regard, it is necessary to build cooperation with other non-Western countries, for example, the BRICS countries, of which India is a promising partner. However, India also faces a similar problem of secondary sanctions due to its dependency on exports to the United States⁷⁹. It is also uncertain whether the firm DP World from UAE, which earlier signed an agreement to develop container transportation along the NSR⁸⁰ is still interested.

⁷⁶ Obyem FNB po otnosheniyu k VVP k kontsu 2024 goda dostignet minimuma za 20 let [The volume of the NWF in relation to GDP by the end of 2024 will reach a minimum in 20 years]. October 19, 2022. URL: <https://www.vedomosti.ru/economics/articles/2022/10/20/946429-obem-fnb-po-otnosheniyu-k-vvp> (accessed 1 December 2022).

⁷⁷ Ekonomisty TSB predupredili o neizbezhnom snizhenii urovnya zhizni iz-za neobkhodimosti importozameshcheniya [Central Bank economists warned of an inevitable decline in living standards due to the need for import substitution]. December 28, 2022. URL: <https://www.kommersant.ru/doc/5748957> (accessed 1 January 2022).

⁷⁸ MVF poveril v Rossiyu [The IMF believes in Russia]. November 18, 2021. URL: <https://expert.ru/2023/01/31/mvf-poveril-v-rossiyu/> (accessed 31 January 2023).

⁷⁹ India should decrease its dependence on team Biden. November 9, 2022. URL: <https://www.livemint.com/news/world/india-should-decrease-its-dependence-on-team-biden-11667975552473.html> (accessed 1 December 2022).

⁸⁰ Dubai and the Opening Arctic: Russia's Rosatom and UAE Logistics Company to Cooperate in the Far North. November 25, 2021. URL: <https://portnews.ru/digest/print/22828/?backurl=/digest/> (accessed 1 December 2022).

Moreover, it can be assumed that the shift in the implementation of some projects will lead to the fact that the planned indicators of cargo transportation on the NSR may not be achieved. This was also stated by the head of the directorate of the NSR Rosatom V. Rukshi. According to Rukshi, the cargo flow through the NSR in 2024 may amount to only 57 million tons⁸¹. Later, the Minister of the Russian Federation for the Development of the Far East and the Arctic A. Chekunkov declared that all companies confirmed the volume of cargo flows along the Northern Sea Route according to its development plan until 2035⁸². However, the President's representative Yuri Trutnev acknowledged that plans would not be met due to the prevailing situation and there would be a delay of 1–2 years even though more than 1.5 trillion roubles of public and private investment is envisaged⁸³. For the first time, a representative of the government acknowledged that stated goals were not likely to fructify at the same time whilst maintaining that the delay was not critical. The formation of a new Presidential working group of the State Council on transport-logistics and socio-economic progress in the AZRF in November 2022 may be a step towards better coordination in order to reduce the delay⁸⁴. Overall, it can be inferred that the Russian leadership and the heads of corporations associated with the NSR still cannot accurately assess the impact of the current geopolitical situation on the implementation of the planned indicators of the NSR or are inclined to continue to support earlier articulated goals to cater for domestic political compulsions.

Nevertheless, it should be noted that the cargo turnover indicators for the NSR for 2022 indicate that the geopolitical situation has already impacted the steep increase in cargo turnover indicators of the NSR observed earlier. The refusal of foreign companies and countries other than Flags of Convenience to use the NSR has led to a near stagnation of cargo turnover indicators. At the same time, it seems unlikely that Russian companies will be able to independently take over the entire cargo turnover through the NSR due to inherent limitations in terms of the capabilities of Russian companies, which were gifted away to the Baltic republics or Ukraine; and, in addition,

⁸¹ Volobyev A. Gruzopotok na Sevmorputi mozhet ne dostignut' 80 mln t k 2024 godu [Cargo traffic on the Northern Sea Route may not reach 80 million tons by 2024]. June 20, 2022. URL: <https://www.vedomosti.ru/business/articles/2022/06/19/927357-gruzopotok-sevmorputi> (accessed 1 December 2022).

⁸² Zadera S. Glava Minvostokrazvitiya Chekunkov: Vse kompanii podtverdili ob'em gruzopotokov po Sevmorputi do 2035 goda [Minvostokrazvitiya Chekunkov: All companies have confirmed the volume of cargo flows along the Northern Sea Route until 2035]. September 29, 2022. URL: <https://rg.ru/2022/09/29/reg-dfo/glava-minvostoka-vse-kompanii-podtverdili-obem-gruzopotokov-po-sevmorputi-do-2035-goda.html> (accessed 1 December 2022).

⁸³ Yuriy Trutnev podvol itogi 2022 goda v Dal'nevostochnom Federal'nom okruge [Yuri Trutnev summed up the results of 2022 in the Far Eastern Federal District]. December 29, 2022. URL: <https://www.kamgov.ru/news/urij-trutnev-podvel-itogi-2022-goda-v-dalnevostochnom-federalnom-okruge-58432> (accessed 30 December 2022).

⁸⁴ Pervoye zasedaniye rabochey gruppy Gossoveta po razvitiyu Arktiki sostoitsya v fevrale 2023 g. [The first meeting of the State Council's working group on Arctic development will be held in February 2023]. December 28, 2022. URL: <https://fomag.ru/news-streem/pervoe-zasedanie-rabochey-gruppy-gossoveta-po-razvitiyu-arktiki-sostoitsya-v-fevrale-2023-g/> (accessed 1 December 2022).

disintegrated due to neo-liberal economic policies followed by the Russian Federation in the 1990s⁸⁵. In this regard, it can be assumed that without the participation of foreign companies and countries in the NSR, the planned projects related to the NSR may not be fully implemented. Russia is also actively promoting the North–South transport corridor with other interested countries, including Iran and India. If the problems between Azerbaijan and Armenia are resolved, this could also be a cost-effective transport corridor to obviate Western sanctions⁸⁶.

Developments — 2022

As fallout of the international geopolitical situation post the special military operation in Ukraine and the series of Western sanctions, it was gradually realised that the NSR could, at least in the near and medium term, be used mainly as a route for the transportation of minerals and hydrocarbons that are actively mined in the AZRF. According to Rosatom, the cargo turnover for the NSR in 2022 was 34.035 million tons⁸⁷. In 2021, it was 34.85 million tons⁸⁸. Thus, even though the planned indicator for 2022 was achieved according to official sources, there was a slight decline (2.34%) in the overall figure as compared to 2021, contrary to assertions by the same source that seems to be only referring to an increase in cargo carried by Russian ships. This can be attributed to the geopolitical situation when transits of foreign ships along the NSR have practically stopped⁸⁹. Thus, data from the official website of Glavsevmorput indicate that permits for 2022 were issued either to Russian vessels or to vessels under the jurisdiction of Russian companies, i.e. Flags of Convenience (FOCs) (see Fig. 8)⁹⁰. These vessels mainly supplied LNG to Europe (15 million m³) as gas prices were higher than in Asia. Thus, shipment to Asia in 2022 (2.4 million tons of LNG) was reduced compared to 2021 (3 million tons of LNG). However, it must be noted that only for the second time oil was supplied to China via the Arctic route in November 2022⁹¹.

⁸⁵ Morskoy flot otechestvennykh kompaniy [Marine fleet of domestic companies]. July 7, 2021. URL: <http://www.morvesti.ru/analitika/1689/90465/> (accessed 1 December 2022).

⁸⁶ Vlasti obsudyat sozдание sudokhodnoy kompanii dlya magistrali «Sever — Yug» [The authorities will discuss the creation of a shipping company for the North-South highway]. November 24, 2022. URL: <https://www.rbc.ru/business/24/11/2022/637e447d9a79470ac9c4f51b> (accessed 1 December 2022).

⁸⁷ NSR General Administration Rosatom. 34.034 million tons of cargo transported along the Northern Sea route in 2022. January 16, 2023. URL: https://nsr.rosatom.ru/en/company/news/?ELEMENT_ID=165497 (accessed 21 January 2023).

⁸⁸ Ignatieva A. Gruzooborot po SMP v 2021 godu dostig 34,85 mln t [Cargo turnover on the NSR in 2021 reached 34.85 million tons]. January 12, 2022. URL: <https://neftegaz.ru/news/transport-and-storage/720501-gruzooborot-po-smp-v-2021-g-dostig-34-85-mln-t/> (accessed 1 December 2022).

⁸⁹ Humpert M. International Shipping on Northern Sea Route Collapses as Foreign Companies Stay Away. September 12, 2022. URL: <https://www.highnorthnews.com/en/international-shipping-northern-sea-route-collapses-foreign-companies-stay-away> (accessed 1 December 2022).

⁹⁰ Spisok razresheniy na plavanie sudov v akvatorii sevmorputi [List of permits for sailing vessels in the waters of the Northern Sea Route], 2022. URL: <https://nsr.rosatom.ru/rassmotrenie-zayavleniy/razresheniya/> (accessed 1 December 2022). Note: Data for 2022 and previous years could not be accessed on this website in January 2023.

⁹¹ Amid Ukraine War, Russia's Northern Sea Route Turns East. December 13, 2022. URL: <https://thediplomat.com/2022/12/amid-ukraine-war-russias-northern-sea-route-turns-east/> (accessed 15 December 2022).

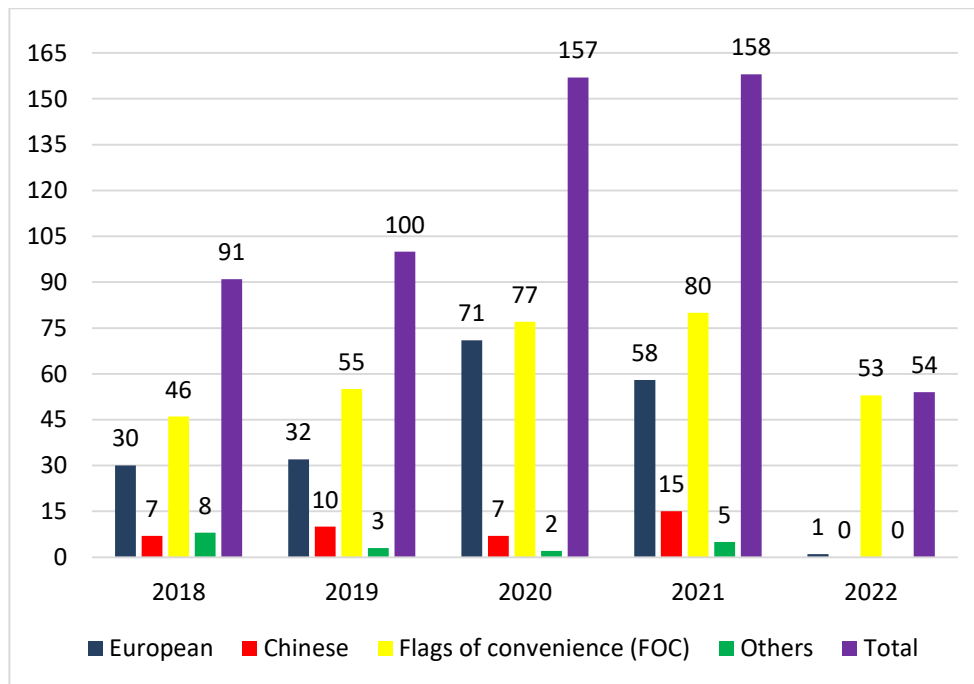


Fig. 8. Foreign vessels on the NSR: permits issued by NSRA 2018–2022 ⁹².

After the Eastern Economic Forum, which was held in September 2022, Russian President Vladimir Putin instructed the Government of the Russian Federation to ensure the establishment of an economically reasonable tariff, a strict schedule, and other competitive conditions for the transportation of goods along the NSR to and from the Far East to the European part of Russia. This is necessary to expand the use of the NSR and increase cargo turnover ⁹³.

The Russian Government will need to support and expand Russian shipyards and related industries to produce the required container ships and dry and bulk cargo ice-class vessels. This is also the case with diesel ice-breakers necessary for year-round navigation where cooperation was envisaged with Finish shipbuilders. Unfortunately, these capabilities do not presently exist in Russia ⁹⁴. In addition, the President directed measures to ensure the maintenance of ships and cargo handling along the NSR ⁹⁵.

The Chief of Staff of Marine Operations of the Glavsevmorput V. Arutyunyan stated that the institution plans to release a new program with automatic construction of routes along the NSR, which will update data on the weather and conditions of the NSR water area twice a day ⁹⁶.

⁹² Spisok razresheniy na plavanie sudov v akvatorii sevmorputi [List of permits for sailing vessels in the waters of the Northern Sea Route]. 2022. URL: <https://nsr.rosatom.ru/rassmotrenie-zayavleniy/razresheniya/> (accessed 1 December 2022). Note: Data for 2022 and previous years could not be accessed on this website in January 2023.

⁹³ Prezident RF poruchil ustanovit' ekonomicheski obosnovannyi tarif i zhestkiy grafik perevozok po Sevmorputi [The President of the Russian Federation instructed to establish an economically reasonable tariff and a strict schedule of transportation along the Northern Sea Route]. October 20, 2022. URL: <https://portnews.ru/news/337360/> (accessed 1 December 2022).

⁹⁴ V Rossii kriticheski ne khvataet flota [There is a critical shortage of fleet in Russia]. May 18, 2022. URL: <http://www.morvesti.ru/analitika/1689/95648/> (accessed 1 December 2022).

⁹⁵ Ibid.

⁹⁶ V «Glavsevmorputi» predupredili o strogoi organizatsii i planirovanii sudokhodstva v akvatorii SMP s 2022 goda [Glavsevmorput warned about the strict organization and planning of navigation in the waters of the NSR from 2022]. October 20, 2022. URL: <https://portnews.ru/news/337359/> (accessed 1 December 2022).

Thus, Russia is trying to create convenient and predictable conditions for carriers, which is necessary for increasing cargo turnover in the NSR.

In addition to all of the above, it should also be noted that Russia is increasing its efforts to create conditions for constant monitoring of the ice situation. At the moment, the Russian satellite Arctic-M has already been launched. Thus, Roshydromet receives operational information about the atmosphere and the underlying surface throughout the Arctic region with limited time frequency (observations are carried out for 15 minutes every 12 hours)⁹⁷.

However, to get more up-to-date information (every 15 minutes), it is planned to launch another satellite. Thus, according to the head of Roshydromet I. Shumakov, in 2023, Russia plans to launch a space satellite that will monitor the situation over the North Pole around the clock. This initiative is a part of the Arctic satellite constellation⁹⁸. Moreover, by 2025, it is planned to install radars on four low-orbit Meteor-M satellites. It is relevant to mention that this is a critical requirement to achieve year-round navigation on the NSR. By 2026, it is planned to launch four more satellites to provide broadband access to the Internet. The head of Roscosmos, Yuri Borisov, noted that the Northern Sea Route and the Arctic zone are top priority projects. Russia plans to launch nine satellites: 4 — for broadband Internet access, 3 — for radar surveillance, and 2 — for hydrometeorology. In addition, by 2024, 68 weather buoys will be put into operation⁹⁹ on the NSR. Thus, Russia plans to create an Arctic space constellation that will ensure constant monitoring of the ice situation and weather conditions, designed to increase the safety and predictability of navigation along the NSR. However, Professor A. Pilyasov noted that these plans have not materialised for a decade due to poor funding, and no service provider has been made responsible for it¹⁰⁰. There is also a need to develop indigenous technology, particularly in respect of synthetic aperture radar satellites.

The latest goal is to establish year-round navigation, including towards the East, to facilitate exports to Asian markets. A. Chekunkov, Minister for the Development of the Far East and the Arctic, claims that in 2023–2024, year-round navigation on the NSR will already be possible¹⁰¹.

Results

Our research brings out several findings. Firstly, for Russia, the NSR continues to remain a crucial driver for the development of its Arctic Zone. Its role and importance as a national

⁹⁷ RF v 2023 godu nachnet kruglosutochno monitorit' Severnyy polyus [Russia in 2023 will start monitoring the North Pole around the clock]. October 21, 2022. URL: <https://www.interfax.ru/russia/868927> (accessed 1 December 2022).

⁹⁸ Ibid

⁹⁹ Zubov M. Severnyy morskoy put' poluchit 80 novykh ledokolov do 2035 goda [The Northern Sea Route will receive 80 new icebreakers by 2035]. September 7, 2022. URL: <https://www.rzd-partner.ru/wate-transport/news/severnyy-morskoy-put-poluchit-80-novykh-ledokolov-do-2035-goda/> (accessed 1 December 2022).

¹⁰⁰ SMP: More Planov [NSR: Sea of Plans]. Sovezdye Review #40, a periodical for oil and gas suppliers. 2022. URL: <http://www.sozvezdye.org/sozvezdyereview/digital/7/index.html#p=24> (accessed 20 January 2023).

¹⁰¹ Kruglogodichnaya navigatsiya po Sevmorputi nachnetsya v 2023-2024 godakh [Year-round navigation along the Northern Sea Route will begin in 2023-2024]. URL: <https://nao24.ru/obshestvo/29939-kruglogodichnaya-navigacija-po-sevmorputi-nachnetsya-v-2023-2024-godah.html> (accessed 1 December 2022).

transport route are progressively increasing. The development of the Northern Sea Route is inextricably linked with providing a reliable transport link and increased cargo traffic, improving the quality of life in the AZRF and accelerating the development of natural resources and oil, gas and mineral exports. In addition, it is a vital cog for the security of the Russian Federation, arguably more so in the current security situation.

Secondly, Russian policies towards the NSR increasingly focus only on domestic needs. The development of the NSR is primarily due to its production capacities in respect of natural resources. Currently, the NSR is part of a large project aimed at exporting resources extracted from the AZRF, which is essential under new circumstances. Legislation has been primarily aimed at promoting domestic investment in the Arctic Zone of the Russian Federation.

Thirdly, geopolitical factors and related Western sanctions have already influenced the future trajectory growth of the NSR because Russia has already lost several foreign investors and technologies necessary for the timely and successful implementation of resource and infrastructure development projects of the NSR, including transshipment hubs. The costs of all transport routes from Russia have increased because of sanctions, price ceilings on oil and gas, and the cost of insurance and other services. Therefore, the NSR is vital for Russia as an export transport route, and it is trying to offset the effects of Western sanctions through additional investment and search for new partners.

Fourthly, Russia will need to make serious investments in shipbuilding to offset the exit of international partners in crucial projects such as diesel icebreakers, LNG tankers and container/bulk cargo shipping of ice class, auxiliary vessels, search and rescue fleet, and dredgers to achieve the planned cargo turnover and its stated goal of round the clock navigation on the NSR. Foreign partners may not be interested due to the effect of secondary sanctions. This may also not be desirable from Russia's perspective, but there is a lack of domestic shipbuilding capacity. Therefore, delays are inevitable. In the short term, there is no alternative but to buy second-hand ships to meet the shortfall in the transportation of various types of cargo. However, they will not be of ice-class, and therefore, the icebreaker program will need state support.

Fifthly, the goal of year-round navigation by 2024 is still premature. The critical infrastructure, namely, the icebreaker fleet and transshipment hubs, to achieve desired trade turnover and the auxiliary fleet to carry out emergency rescue measures are still in various stages of preparedness.

Sixthly, from our analysis, the infrastructure plan is detailed, but many projects still need to be budgeted. Consequently, the goals set for cargo turnover are not likely to be achieved. Lastly, internally within Russia, the NSR may face competition for funds from the North-South transport corridor, which faces fewer climatic and infrastructure hurdles.

Conclusion

In conclusion, we assert that the Russian government has constantly promulgated and modified its policies for the NSR in response to the geopolitical and geo-economic situation since it considers the NSR crucial for the development of the AZRF and national security. The prospect of year-round navigation directly depends on Russia's efforts to develop the NSR, and this is essential to cater for the pivot to the East after the closure of the G7 and EU export markets as a consequence of a "Black Swan event" like the special military operation in Ukraine. In this regard, the Russian leadership places great emphasis on developing the icebreaking fleet and creating the necessary infrastructure. However, Western sanctions have significantly impacted projects connected both with shipbuilding and the extraction of energy resources. Thus, it is expected that in the medium and long term, Russia will need to invest significant resources to offset the effect of sanctions in critical areas, especially shipbuilding, satellite and telecommunications coverage of the Arctic, to increase the potential and capabilities of the NSR. It is uncertain how the goals set in the 2022 NSR development Plan would be achieved in the context of increased spending in all spheres of national security due to the special military operation and other measures to stimulate the economy in the context of a recession. Consequently, it may be prudent to reassess goals set earlier and focus on achievable tasks factoring in the limitations imposed by geopolitical and geo-economic factors.

References

1. Moe A. A New Russian Policy for the Northern Sea Route? State Interests, Key Stakeholders and Economic Opportunities in Changing Times. *The Polar Journal*, 2020, vol. 10, iss. 2, pp. 209–227. DOI: 10.1080/2154896X.2020.1799611
2. Moe A. Russian Policies for Development of the Northern Sea Route: An Assessment of Recent Developments and Implications for International Users. In: *The Arctic in World Affairs: Will Great Power Politics Threaten Arctic Sustainability?* Korean Maritime Institute, 2020, pp. 199–208.
3. Gunnarsson B., Moe A. Ten Years of International Shipping on the Northern Sea Route: Trends and Challenges. *Arctic Review on Law and Politics*, 2021, vol. 12, pp. 4–30. DOI: 10.23865/arctic.v12.2614
4. Gunnarsson B. Recent Ship Traffic and Developing Shipping Trends on the Northern Sea Route — Policy Implications for Future Arctic Shipping. *Marine Policy*, 2021, vol. 124, pp. 1–8. DOI: 10.1016/j.marpol.2020.104369
5. Fedorov V.P., Zhuravel V.P., Grinyaev S.N., Medvedev D.A. The Northern Sea Route: Problems and Prospects of Development of Transport Route in the Arctic. *IOP Conference Series: Earth and Environmental Science*, 2020, vol. 434, pp. 1–7. DOI: 10.1088/1755-1315/434/1/012007
6. Sevastyanov S., Kravchuk A. Russia's Policy to Develop Trans-Arctic Shipping along the Northern Sea Route. *The Polar Journal*, 2020, vol. 10, iss. 2, pp. 228–250. DOI: 10.1080/2154896X.2020.1799609
7. Travkina E.V. Northern Sea Route: Formation of Russian Transport Policy in the Arctic. *IOP Conference Series: Earth and Environmental Science*, 2019, vol. 302, pp. 1–6. DOI: 10.1088/1755-1315/302/1/012088
8. Didenko N.I., Cherenkov V.I. Economic and Geopolitical Aspects of Developing the Northern Sea Route. *IOP Conference Series: Earth and Environmental Science*, 2018, vol. 180, pp. 1–10. DOI: 10.1088/1755-1315/180/1/012012
9. Katysheva E.G. The Role of the Russian Arctic Gas Industry in The Northern Sea Route Development. *IOP Conference Series: Earth and Environmental Science*, 2020, vol. 539, pp. 1–6. DOI: 10.1088/1755-1315/539/1/012075

10. Lipunov N.S. Mezhdunarodnoe izmerenie severnogo morskogo puti [The International Dimension of the Northern Sea Route]. *Rossiyskaya Arktika* [Russian Arctic], 2021, no. 1 (12), pp. 78–84.
11. Ilin I. *Arctic Maritime Logistics*. Switzerland, Springer, 2022, 309 p.
12. Erokhin V., Sergunin A.A., Konyshov V.N. The Northern Sea Route Development: The Russian Perspective. *Arctic Maritime Logistics*, 2022, pp. 283–303. DOI: 10.1007/978-3-030-92291-7_15
13. Vylegzhanin A. Navigation in the Northern Sea Route: Interaction of Russian and International Applicable Law. *The Polar Journal*, 2020, vol. 10, iss. 2, pp. 285–302. DOI: 10.1080/2154896X.2020.1844404
14. Gavrillov V. Russian Legislation on the Northern Sea Route Navigation: Scope and Trends. *The Polar Journal*, 2020, vol. 10, iss. 2, pp. 273–284. DOI: 10.1080/2154896X.2020.1801032
15. Cao Y., Liang S., Sun L., Liu J., Cheng X., Wang D., Chen Y., Yu M., Feng K. Trans-Arctic Shipping Routes Expanding Faster Than the Model Projections. *Global Environmental Change*, 2022, vol. 73, pp. 1–9. DOI: 10.1016/j.gloenvcha.2022.102488
16. Lynch A.H., Norchi Ch.H., Li X. The Interaction of Ice and Law in Arctic Marine Accessibility. *Proceedings of the National Academy of Sciences (PNAS)*, 2022, no. 119 (26), pp. 1–3. DOI: 10.1073/pnas.2202720119
17. Sergunin A.A., Konyshov V. Forging Russia's Arctic Strategy: Actors and Decision-Making. *The Polar Journal*, 2019, vol. 9, iss. 1, pp. 75–93. DOI: 10.1080/2154896X.2019.1618549
18. Gnenoy O. The Northern Sea Route: What Does the Coming Day Have in Store for Us? *Northern Sea Route*, 2022, no. 2 (56), pp. 50–58.
19. Bhagwat J.V. Arctic Military Posturing and Its Influence on the Development of the Northern Sea Route. *Arktika i Sever* [Arctic and North], 2022, no. 48, pp. 91–118. DOI: 10.37482/issn2221-2698.2022.48.91
20. Bhagwat J. Politika razvitiya mezhdunarodnykh sudokhodnykh marshrutov: potentsial primeneniya zarubezhnogo opyta v Rossii na primere Severnogo morskogo puti [The Policy of the Development of the Sea Route: Opportunities for Russia (on the Example of the Northern Sea Route)]. *Vestnik Moskovskogo Universiteta. Politicheskie nauki. Seriya 12* [Bulletin of Moscow State University. Series 12, Political Science], 2021, no. 2, pp. 86–101.
21. Zazou Z. A. Citizens' Participation in Financing National Projects. *Review of Economics and Political Science*, 2020, 21 p. DOI: 10.1108/REPS-10-2019-0131
22. Bhagwat J. Politika razvitiya Morskogo shelkovogo puti: vozmozhnosti dlya Rossii (na primere Severnogo morskogo puti) [State Policy for the Development of the Maritime Silk Road. Opportunities for Russia (Example of the Northern Sea Route)]. *Vestnik RGGU. Seriya "Politologiya. Istoriya. Mezhdunarodnye otnosheniya"* [RSUH/RGGU Bulletin Series "Political Science. History. International Relations"], 2022, no. 2, pp. 75–89. DOI: 10.28995/2073-6339-2022-2-75-89
23. Moe A. «Belkomur» i rol' Kitaya [“Belkomur” and the Role of China]. *ECO*, 2022, no. 9, pp. 8–33. DOI: 10.30680/ECO0131-7652-2022-9-8-33

*The article was submitted 01.12.2022; approved after reviewing 04.12.2022;
accepted for publication 08.04.2023*

Contribution of the authors: the authors contributed equally to this article

The authors declare no conflicts of interests