On the prospects for China’ cooperation with the Arctic countries

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Abstract. Based on the analysis of official documents, materials of analytical centers, scientific publications, the authors conclude that in the medium term Russia and the Nordic countries will remain the priority partners of China in the Arctic. The development of China-U.S. cooperation in the Arctic is unlikely. Washington deliberately limits its partnership with Beijing. Canada is interested in Chinese investment in its polar regions, so economic cooperation in energy and mining sectors has a chance of development. Closer cooperation between China and Canada will be hindered by close allied relations between Canada and the United States. In order to develop Russian-Chinese cooperation in the Arctic, it seems important to pay attention to improving the competitiveness of Russian projects. China is considering various options for realizing its interests and choosing the optimal ones. The increase in activity of Chinese companies in the Arctic is accompanied by growing mistrust among the political circles of Arctic states regarding the motives for their operations in the region. The creation of an Arctic Infrastructure Investment Bank under the auspices of the Arctic Council would reduce political risks for both the Arctic states and China, and promote economic cooperation in the region.

1. Introduction
Xi Jinping's rise to power in China led to a change in the country's overall strategy, the fundamental idea of which was the "great revival of the Chinese nation.” The idea of the "Chinese dream” gave impetus to large-scale initiatives such as "One Belt - One Way.” The implementation of such ambitious projects involves changing the nature of foreign policy: it should become active, multivector and be built on mutually beneficial conditions by means of soft power and economic diplomacy.

Arctic agenda is not a priority, but plays an important role in China's new policy. The 13th Five-Year Plan, published in March 2016, in Chapter 41 "Widen Space for the Blue Economy”, indicates the need to develop cooperation in the Arctic on the basis of a new research station, as well as the construction of a new modern icebreaker. China has successfully completed its tasks. In 2018, the joint China-Iceland Observatory in Karholl started its work. Its task is to conduct research on the atmosphere, biosphere, ice cover and ocean. In the same year, the People's Republic of China commissioned the first icebreaker of its own construction, “Snow Dragon-2”, designed by the Finnish company Aker Arctic. The vessel was transferred to the Polar Research Institute of China.

Beijing for a long time did not have a policy document on the Arctic, despite its interest in the region and its active policy. A lengthy discussion ended on January 26, 2018, when the State Council of the People's Republic of China published a White Paper titled “China's Arctic Policy” [1]. It is the
main document of China which formulates the country's policy in the Arctic. The White Paper is intended to clarify China's interests in the Arctic, to show transparency of China's intentions and compliance of their interests with international law.

China's Arctic policy is ambitious and indicates the country's long-term interests in the Arctic. China claims to participate in both the development and management of the region. Beijing considers the Arctic as a zone of responsibility that extends beyond the interests of the eight Arctic states and affects the entire international community. China's interests in the Arctic are very extensive - from participating in management of Arctic affairs, developing bilateral diplomacy on Arctic issues, accessing potential resources, using northern shipping routes, to conducting polar research and developing Arctic tourism.

The topic of the Russian-Chinese cooperation in the Arctic, in particular, the problems and prospects of economic cooperation has received quite wide coverage both among Russian researchers and foreign (Hong Seryun, Gao Tianmin, V. L. Erokhin, Yu Tao, S. L. Sazonov, Wang Huan, R. Kalfaoglu) [14, 16, 18, 25]. Considerable attention is also paid to the analysis of the geopolitical and geoeconomic interests of China in the Arctic (V. N. Konyshev, S. N. Pogodin, Wang Juntao, M. Yu. Gutenev). There are studies that consider the development of China's cooperation with certain Arctic countries (I. S. Doroshenko, Ya. O. Zakhariev) [4, 8, 9, 10, 11]. The purpose of this study is to analyze the prospects for the development of cooperation between China and the Arctic countries; explore the possibilities of Russian-Chinese collaboration in the region, taking into account China’s relations with other Arctic states.

2. Prospects for China’s cooperation with the United States and Canada in the Arctic region
To realize economic and scientific interests in the region, China is actively strengthening bilateral partnerships with Arctic states. China has been most successful in establishing a dialogue on the Arctic with Russia and the Nordic countries (Norway, Denmark, Iceland, Finland and Sweden).

As for the United States, the intensification of competition between the United States and China in trade and economic sphere, as well as traditionally difficult relations between them in the Asia-Pacific region, had a negative impact on the Arctic dialogue. The U.S. is concerned that China may use its presence in the Arctic to strengthen its military position, including by deploying submarines in the region [2]. New U. S. Department of Defense Arctic strategy, published in June 2019, focuses on China's activities in the region [3]. The document repeatedly refutes the claim that China is a near-arctic state. The U.S. criticizes China’s efforts to undermine the region’s rules and regulations and is worried that the country's aggressive economic behavior in other parts of the world could be repeated in the Arctic. In July 2019, the United States announced the cancellation of the preliminary agreement with China Petrochemical Corporation (Sinopec), CIC Capital Corporation and Bank of China on cooperation in marketing, financing, investment and supply of Chinese equipment for the Alaska LNG project, signed in 2017. The U.S. authorities saw possible risks to U.S. security in the implementation of this project.

While the United States is limiting its cooperation with China in the Arctic, Canada has not yet set an independent political course for developing relations with Beijing [4]. The report of the Standing Committee on Foreign Affairs and International Development of the Parliament of Canada notes the need to develop dialogue with China to clarify its intentions in the Arctic region [5]. The report's authors are concerned about China’s growing interest in the Arctic. In particular, it is noted that in the summer of 2017 the Chinese icebreaker "Snow Dragon” passed through the North-West Passage (NWP) without taking into account its legal status [6]. The ship did not request Canada's official permission to enter its inland waters, but instead requested permission from the Canadian authorities to conduct marine scientific research in accordance with the obligations imposed by UNCLOS. Canadian experts do not exclude the fact that as a result of the intensification of navigation along the NWP, there may be an escalation of the situation regarding the status of the passage.

It is worth noting that Chinese transport companies are more interested in the Russian Northern Sea Route (NSR) than in the NWP. The reason for this is that the NWP, which has the same length as the
NSR, is characterized by a more severe ice situation. In addition, Canada is significantly inferior to Russia in the size of the icebreaker fleet, and therefore the Canadian NWP will not become a competitor to the Russian NSR in the foreseeable future [7].

Canada's new Arctic strategy, published in September 2019, notes that foreign investment is an important factor in the growth of the northern economy. Among the industries with significant economic potential, the authors of the strategy mention mining, tourism, and commercial fishing. Although Canadian policy does not distinguish China as a partner in the development of the Arctic, the fact that Chinese state-owned mining enterprises have significant financial resources and expand activity around the world makes cooperation very likely. Experts note an increase in Chinese presence in Northern Canada [4]. In particular, MMG Ltd (its major shareholder is China Minmetals Corporation, a Chinese state-owned enterprise) owns the Izok and High Lake deposits (copper and zinc reserves) located in Nunavut in the Canadian Arctic. In August 2019, the Canadian National Trade Corridors Fund allocated CAD $ 21.5 million to develop a project for the construction of a road and a deep-water port on the Arctic Ocean to facilitate transportation of metal concentrates to overseas markets. The road and port are critical infrastructure for starting development of the Izok Corridor project. If the project is implemented, MMG Ltd would own one of the largest copper and zinc mines in the world, capable of producing 180 000 tonnes of zinc and 50 000 tonnes of copper in concentrate per year.

3. Prospects for cooperation between China and the Nordic countries in the Arctic

In order to put into practice the concept of “geographical proximity of China to the Arctic”, China is actively seeking support from the Nordic countries [8], [9], [10], [11]. These countries are interested in attracting Chinese investments in their Arctic projects. In addition, through cooperation with China, they are increasing their political importance in Arctic affairs.

Cooperation in the Arctic is regularly discussed at high-level government meetings of these countries. In 2012, the governments of Iceland and China signed a separate framework agreement on cooperation in the Arctic.

The development of scientific cooperation with the Nordic countries is important for increasing the role of China in global Arctic policy. China owns two research stations in the Arctic. The Yellow River station on Spitsbergen, which began operation in 2004, gave impetus to China's comprehensive study of the Arctic. Its activities include research in meteorology, paleo-oceanology, glaciology. In October 2018, the second Arctic research station, the joint China – Iceland Observatory in Karholl, began operation. China is interested in opening a research station in Greenland.

China is actively initiating the creation of joint scientific centers with leading research institutions of Northern Europe. In 2013, the China-Nordic Arctic Research Center was established at the Polar Research Institute of China. In April 2018, China and Finland signed an agreement to establish a joint research center for Arctic observations and data exchange at the Arctic Space Observatory.

The most promising areas of economic cooperation between Chinese companies and firms from Northern Europe in the Arctic are oil and gas projects, mining, infrastructure projects, telecommunications, and renewable energy.

Chinese companies are interested in oil and gas projects in Norway, Iceland, Greenland. In particular, China National Petroleum Corporation and China National Offshore Oil Corporation express interest in participating in tenders for the development of oil and gas blocks in Western Greenland. In October 2018, during the state visit of Norwegian King Harald V to China, Equinor (formerly Statoil) signed a preliminary agreement with CNPC on cooperation in oil and gas exploration, renewable energy and carbon capture technology.

In the mining industry, projects involving Chinese companies are being successfully implemented in Greenland. For example, the Chinese state-owned company Shenghe currently holds a 12.5 % stake in the Kvanefjeld rare earth mining project in Southern Greenland. Finland is interested in attracting Chinese investors to mining projects [9].
A promising area of cooperation is investment in infrastructure serving the Arctic transport routes. It is worth noting that in addition to the NSR and the NWP, Chinese companies are showing interest in the trans-polar Arctic route. The interest of China in this sea route and in ports in Iceland as possible hubs along this route is confirmed by experts of the Economist Intelligence Unit. This is the shortest northern sea route from the Atlantic to the Pacific Ocean, which extends beyond the jurisdiction of coastal states. Currently, this route is covered by thick pack ice all year round. In the summer of 2017, the Chinese icebreaker Snow Dragon made a transit along this route. Its detailed maps were compiled. In addition, some experts associate the decision of China to build an atomic icebreaker with interest in this path. In particular, L. J. Goldstein, a research professor in the China Maritime Studies Institute at the United States Naval War College, writes about it [12].

The growth of China's scientific activity in the Arctic, as well as China's interest in investing in the strategic infrastructure of the North, is ambiguously perceived by the countries of Northern Europe [9], [13].

China's scientific activities in Svalbard are of concern to the Norwegian authorities. In the 1920s the conclusion of the Svalbard Treaty seemed beneficial to the Norwegians. However, with the growth of China's geostrategic interests in the Arctic, the concession has become the subject of debate in the system of bilateral relations [14]. At present, this treaty is a serious miscalculation in the eyes of Norwegian society. The Norwegian government is preparing a strategy to regulate research in Svalbard. In accordance with the draft strategy developed by the Climate and Polar Department of the Research Council of Norway, scientific studies conducted on the archipelago should be published in English and limited to the natural sciences. In particular, the Norwegian authorities do not want research to be conducted on the conclusion of the Svalbard Treaty and how Norway obtained the rights to this archipelago. China currently manages 80 projects in biology, atmospheric science and social sciences in Svalbard. Polar Research Institute of China, in response to the publication of the draft strategy, noted that Chinese scientists have the right to undertake research at their discretion, including in the field of social sciences and law [15].

China's possible participation in infrastructure projects in the Arctic is also met with mixed reactions. Denmark is concerned about the perspective of involvement of the state-owned China Communications and Construction Company in the construction of airports in Nuuk and Ilulissat in Greenland. In June 2019, the Chinese company withdrew its application for participation in this project. Earlier, in 2016, the Danish government, under pressure from the United States, refused to sell the abandoned naval base to the Hong Kong-based mining company General Nice. In 2018, Sunbase International, a Hong Kong-based company, canceled plans to build a deep-water port on the Atlantic coast in Liseki in Western Sweden. This happened due to the negative attitude of the public to this because of the potential environmental impact of the port and security risks.

A number of Russian experts have similar concerns about China's investment in strategic infrastructure projects [16]. Russian experts are worried that China's participation in the construction of infrastructure along the NSR may give rise to further discussion of the extent to which this route remains under Russian jurisdiction and to what extent Russia has the right to establish its own shipping rules. It is also important to note that if Russia refuses to cooperate with China on the NSR, the latter can organize a coalition with Northern European countries demanding the internationalization of the NSR.

A possible solution to the problem is the establishment of an Arctic Infrastructure Investment Bank under the Arctic Council. This bank could become a channel for attracting foreign investment in the construction of Arctic infrastructure. The creation of such a bank would reduce political risks for both the Arctic countries and China and would contribute to the development of economic cooperation and the overall improvement of economic situation in the region [17].

4. Prospects for Russian-Chinese cooperation in the Arctic
The presence of rich oil and gas fields, the need in case of operation of the NSR as a trade route to use the services of ports, the Russian icebreaker fleet determines the development of cooperation with
The Russian Federation as a priority for China in the Arctic [16]. Among the most promising areas for cooperation are oil and gas sector, shipbuilding, development of the NSR, scientific cooperation and tourism.

The successful launch of the “Yamal LNG” project, in which China provided up to 60% of the capital, laid a favorable basis for further Russian-Chinese cooperation in the Arctic. In July 2019, China National Oil and Gas Exploration and Development Company (CNOOC) and China National Offshore Oil Corporation (CNOOC) purchased a 20% stake (10% each) in the Russian “Arctic LNG-2” project. Chinese companies will have the largest stake among foreign investors. The conclusion of the deal increases the likelihood that Russian company Novatek will be able to get project financing from Chinese banks, if it is necessary. In addition, the deal confirms China’s intention to increase LNG imports. The “Arctic LNG-2” project includes the construction of three LNG production trains with a capacity of 6.6 million tons per year. It is implemented on the resource base of the Salmanovskoye field in the Yamal-Nenets autonomous district.

Under Western sanctions, Russian companies Rosneft and Gazprom are interested in attracting Chinese firms to jointly develop the Arctic shelf. In particular, in 2016, Gazprom offered CNOOC to participate in development of oil fields on the Arctic shelf. In September 2018, Rosneft and China National Petroleum Corporation discussed offshore cooperation within the framework of the Eastern Economic Forum. However, no information on joint projects is yet available.

The question is also whether Chinese companies will be able to replace Russia's Western partners in work on the Arctic shelf, especially in terms of technology. In general, experts note that Russian-Chinese technological cooperation in oil and gas sector has increased since the imposition of sanctions [18]. For example, in 2017, “Gazprom Geologorazvedka” signed a contract with China Oilfield Service Limited for the lease of the semi-submersible floating drilling rig Nanhai-8. Gazprom will use this installation to drill exploration wells in the Kara Sea.

A promising area of cooperation between Russia and China in the Arctic is shipbuilding. On June 7, 2019, Novatek, Sovcomflot, China Ocean Shipping Company and the Silk Road Fund signed an agreement to establish a joint venture "Maritime Arctic Transport." Its main activity will be the creation of a fleet of Arctic icebreaking tankers for year-round transportation of liquefied natural gas. The deal will simplify the attraction of Chinese financing for the construction of new icebreaking LNG tankers and will lead to closer cooperation with Chinese partners (equipment, technology).

Currently, South Korea is the undisputed leader in the production of these ships [19]. The share of Chinese shipbuilders in the LNG shipping market is 7%. However, as China Daily noted in December 2018, China is moving to large-scale investment in rapidly growing market for LNG carriers [20]. The success of Chinese shipbuilding industry in this new high-tech industry is evidenced by the fact that in December 2018, the world's first all-season Arctic tanker for the transport of gas condensate “Boris Sokolov” was built at the Chinese shipyard. It will work in the “Yamal LNG” project.

Another promising area of cooperation is the development of the NSR. In November 2017, at the 22nd meeting of the heads of governments, Chinese President Xi Jinping and Russian Prime Minister Dmitry Medvedev agreed on a joint study, the creation of the necessary infrastructure and the use of the NSR. The Chinese side understands that the development of oil and gas resources in the Arctic should be accompanied by the development of a transportation line; for example, LNG from Yamal is exported to Asian and European markets via the NSR.

During the Arctic Forum, which was held in Arkhangelsk in March 2017, the Chinese state-owned Poly Technologies proposed investment plans for the construction of a new deep-water seaport in Arkhangelsk and the Belkomur railway (White Sea - Komi - Ural) in the amount of $ 5.5 billion. In the same year, this company expressed a desire to invest $ 300 million in the development of the port of Murmansk, which can become a base for servicing Chinese ships. However, there are no facts confirming the signing of the relevant agreements.

Chinese companies are actively testing the NSR. In the summer of 2013, the state-owned China Ocean Shipping Company (COSCO) made its first commercial voyage using the NSR. Their ship, “Yong Sheng”, passed the route from the Chinese port of Dalian to the Dutch port of Rotterdam in 35
days, instead of 48. On September 5, 2018, the Chinese universal ice-class cargo ship “Tian En”, owned by Cosco Shipping Specialized Carriers, has completed its first voyage along the entire route of the proposed Polar Silk Road. During the NSR, the vessel was accompanied by atomic icebreakers of Atomflot. In 2018, 7 Chinese vessels passed through the NSR.

However, Beijing is in no hurry to make investment decisions regarding the construction of infrastructure in the Russian Arctic. In the article [21], Yun Sun, an expert of the American research Stimson center, concludes that the Russian and Chinese perceptions of cooperation on developing the NSR differ. From the Chinese point of view, the joint development of the NSR is a Russian proposal, to which China has reacted primarily for strategic and political reasons, rather than economic ones. Chinese experts note that the port facilities of the NSR are outdated and inefficient. According to the Chinese experts, Russia does not have sufficient funds to maintain the current level of service for the NSR, not to mention providing services if it becomes an international transit corridor. In order to make a positive decision about investing in the infrastructure of the NSR, Chinese companies need guarantees that favorable conditions are provided for the passage of their vessels.

According to Chinese researchers, the exploitation of the NSR is attractive, but extremely difficult due to significant influence of geographical, climatic, technical and political factors. Most studies confirm that China can use the NSR for transportation of oil, gas and other resources, as well as to a limited extent for container transportation on medium-sized vessels [22], [23], [24].

From the point of view of Chinese experts, it is not appropriate for Chinese companies to invest in the development of NSR infrastructure without obtaining guarantees of favorable conditions for the passage of their vessels along the route [21]. For Russia, China's desire to obtain exclusive rights to use this transport artery is unprofitable and unsafe [25]. In the medium term, China’s participation in the modernization of NSR infrastructure will be linked primarily to the joint implementation of Russian-Chinese projects for the development of oil and gas fields (Yamal LNG, Arctic LNG-2). The NSR will be used for the transportation of hydrocarbons from their production sites in the Russian Arctic to the ports of China.

Russian-Chinese Arctic scientific cooperation is actively developing. A number of joint research Arctic projects are currently underway. In particular, since 2012 the annual Russian-Chinese conference on cooperation in the Arctic has been held. In 2015, the Far Eastern Federal University, together with the Shanghai Jiao Tong University, founded the Joint Institute for Marginal Seas and Arctic Studies. In April 2019, Shirshov Institute of Oceanology of the Russian Academy of Sciences and National Laboratory for Marine Science and Technology signed an agreement to establish a Sino-Russian Arctic research center in Qingdao. Since 2016, Russian-Chinese Arctic expeditions have been carried out. A joint expedition is planned for 2020 to conduct research in the Barents, Kara and East Siberian seas with the aim of developing recommendations for optimizing traffic along the NSR.

5. Conclusion
The growing strategic and economic potential of the Arctic is attracting increasing attention from China, which aims to play a leading role in the global economy and politics of the 21st century. China's participation in development and management of the Arctic will increase. Already it has scientific, technical (research stations and icebreakers) and financial capabilities to do this.

In the medium term, Russia and the Nordic countries will remain the main partners of China in the Arctic.

The development of cooperation between China and the United States in the Arctic is unlikely. Washington deliberately limits its partnership with Beijing.

Canada is interested in Chinese investment in its polar regions, so economic cooperation in energy and mining industries has a chance of development. Closer cooperation between China and Canada in the Arctic will be hampered by close allied relations between Canada and the United States and Ottawa’s dependence on Washington in foreign policy.

As for the Nordic countries, in the short to medium term, there will be an increase in initiatives and proposals for scientific exchanges, potential Polar Silk Road projects and investments in mining
projects by Chinese state and private companies. For China, this is an opportunity to gain a foothold in the Arctic, as well as to gain access to the latest technologies in the fields of renewable energy, satellite communications, and biotechnology. The countries of Northern Europe are interested in Chinese investment, since without them the development of the region will be significantly complicated. However, there is a growing concern in the political circles of these countries about Chinese investment in the region's strategic infrastructure. Given the blocking of Chinese companies’ participation in the construction of airports in Greenland and the port in Sweden, and also because of the tough stance of their closest ally, the United States, on this issue, it will be increasingly difficult for Chinese companies to participate in significant infrastructure projects in the European Arctic.

The most promising areas for development of cooperation between Russia and China in the Arctic are oil and gas sector, shipbuilding, scientific cooperation and tourism. There are also opportunities for cooperation in the field of renewable energy. Now, Chinese equipment is used at pilot wind and solar stations in the Russian Arctic. The prospects for China's participation in the modernization of the NSR infrastructure will be primarily related to the joint implementation of Russian-Chinese oil and gas projects. In order to develop Russian-Chinese cooperation in the Arctic, it seems important to pay attention to improving the competitiveness of Russian projects. China is considering various options for realizing its interests and choosing the optimal ones. Currently, Chinese companies are considering the possibility of implementing oil and gas projects not only in the Russian Arctic, but also in Norway and Greenland. Chinese companies show interest in the construction of ports in Iceland, Sweden, and Norway. Probably, in the end, only a few projects, and not necessarily Russian ones, will be selected for implementation.

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