

Sino-Russian Cooperation in the Arctic: Current Situation, New Directions and Challenges



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Abstract. Russia’s chairmanship of the Arctic Council from 2021 to 2023 provides new opportunities for China and Russia to deepen Arctic cooperation, especially on the issue of “sustainable development”. Therefore, further research on Sino-Russian Arctic sustainable cooperation is of positive significance for deepening Arctic cooperation between Russia and China. In particular, it is necessary to re-examine the new directions of Sino-Russian Arctic cooperation in the context of today’s drastic changes in the international geopolitical situation. The purpose of the article is to analyze the current situation, new directions and challenges of Sino-Russian Arctic sustainable cooperation and to provide concrete paths for deepening cooperation. To achieve this goal, the article analyzes the national policies of China and Russia, identifies the common interests of both countries, and then analyzes the current situation, new directions and problems faced by the Arctic sustainable cooperation between the two countries in the

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context of the reality of the Russian Arctic region. The innovation of this article is to provide a new path for deepening Arctic cooperation between the two countries based on the perspective of Chinese scholars and a more comprehensive understanding of China's Arctic policy. The significance of this article is that the research content and conclusions can be used to promote the process of Arctic sustainable development cooperation between the two countries at the social and even national levels.

Key words: China, Russia, Arctic, sustainable development, Sino-Russian cooperation, global challenges.

Acknowledgment

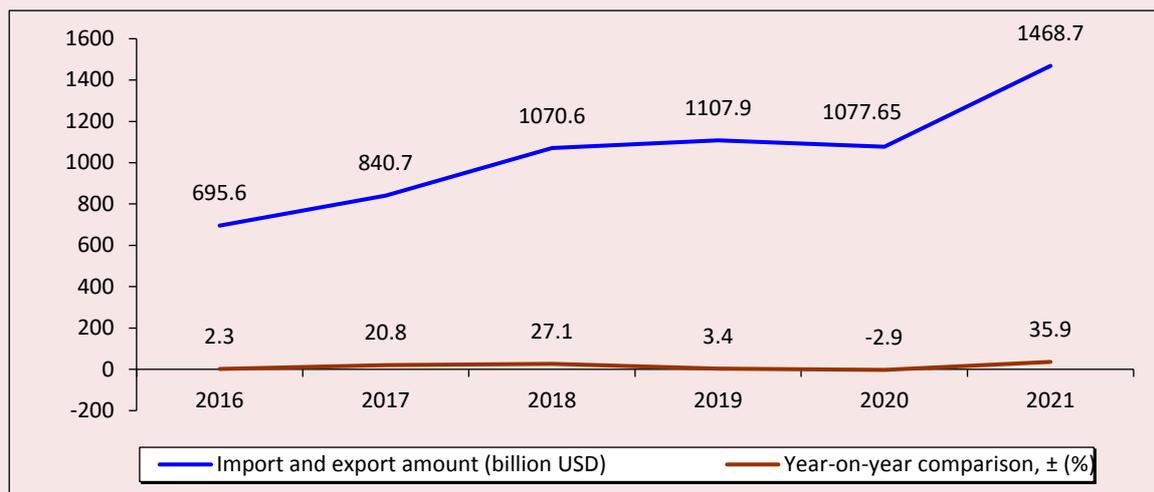
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Introduction

In May 2021, Russia succeeded the chairmanship of the Arctic Council and put forward the goal of achieving sustainable development in the Arctic. At the same time, sustainable development is an important direction for the development of the Arctic region in Russia in 2020–2035. It can be seen that, in addition to mineral resources exploration, Russia has started to seek a diversified model of sustainable development in the Arctic.

Russia's new development model provides opportunities for China and Russia to deepen Arctic cooperation. In recent years, China and Russia have developed friendly relations, with notable achievements in bilateral trade volume, scientific and technological development and mutual tourism visits (*Fig. 1, Fig. 2, Tab. 1*). Under the guidance of friendly relations, Sino-Russian Arctic cooperation will continue to deepen, while

Figure 1: Bilateral trade volume between China and Russia in 2016–2021



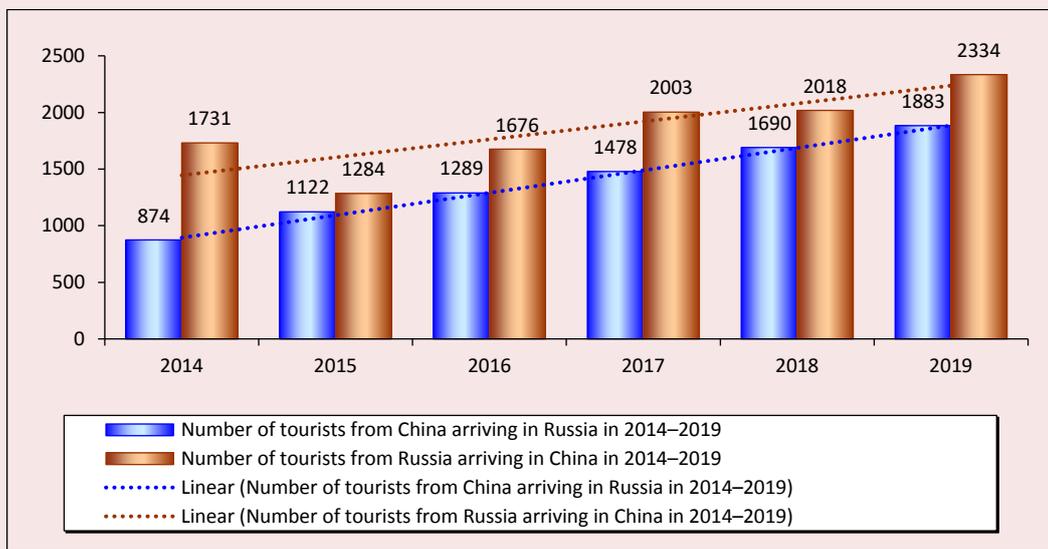
Source: National Bureau of Statistics of China. Available at: <https://data.stats.gov.cn/easyquery.htm?cn=C01>; Ministry of Commerce PRC. Available at: <http://petersburg.mofcom.gov.cn/article/jmxw/202201/20220103237286.shtml> (accessed: May 20, 2022).

Table 1. Achievements of Sino-Russian cooperation in the field of science and technology innovation

Date	Key Events
2015	The first Chinese-Russian Forum of High Technologies (Moscow) was held
2016	Co-signed “Memorandum of Understanding on Cooperation on Innovation” was signed
2017	The first Chinese-Russian Innovation Dialogue (Beijing) was held
2018	The Silk Road Chinese-Russian Innovation Park was built
2019	The Sino-Russian Joint Innovation Investment Fund was established
2020–2021	The Year of Chinese-Russian Scientific, Technical and Innovation Cooperation was organized

Source: own compilation based on information and news from the official website of Ministry of Science and Technology PRC. Available at: <http://www.most.gov.cn/index.html> (accessed: May 18, 2022).

Figure 2. Volume of mutual visits of tourists between Russia and China in 2014–2019



Data for 2020–2021 are not representative due to the negative impact of the COVID-19 on global tourism in 2020–2021; therefore, they are not included in the figures.

Source: National Bureau of Statistics of China. Available at: <https://data.stats.gov.cn/search.htm?s=%E4%BF%84%E7%BD%97%E6%96%AF>; Federal State Statistics Service of Russia. Available at: <https://rosstat.gov.ru/folder/210/document/13241> (accessed: May 19, 2022).

issues related to the sustainable development¹ of the Arctic – including scientific research, ecological protection and polar tourism – are expected to become new directions for Arctic cooperation between the two countries.

The purpose of this study is to analyze current Sino-Russian cooperation in the sustainable development of the Arctic, and to specify new directions for cooperation in the context of new opportunities. Our findings can be used in practice

¹ According to the Sustainable Development Agenda, Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

For sustainable development to be achieved, it is crucial to harmonize three core elements: economic growth, social inclusion and environmental protection. Therefore, the authors of this paper argue that the issue of “sustainable development” in the Arctic context is to promote Arctic economic prosperity while protecting Arctic ecological security. The three main issues are scientific research, ecological protection and polar tourism. For more information on the UN’s interpretation of the sustainable development agenda, see: <https://www.un.org/sustainabledevelopment/zh/development-agenda/>

to promote international cooperation between Russia and China in the field of sustainable development of the Arctic. Research objectives include: 1) studying the current situation of Russian-Chinese cooperation in the sustainable development of the Arctic; 2) identifying new opportunities for Russian-Chinese cooperation in the sustainable field of the Arctic; 3) analyzing the challenges to be faced by new opportunities for Russian-Chinese cooperation in the sustainable field of the Arctic. Thus, the main research theme is the new opportunities for Sino-Russian cooperation in the field of sustainable development of the Arctic in the current geopolitical context.

Research methods

The research is based on the literature of domestic and foreign experts in the field of Sino-Russian Arctic cooperation. The information base includes the Arctic policies and regulations of China and Russia, as well as information and data from official departments of China and Russia and foreign analysis centers.

Domestic and foreign scholars have made significant contribution to the research on Arctic international cooperation from a macro perspective. The Russian International Affairs Committee has written monographs *Arctic Region: Issues of International Cooperation* (Zagorsky, 2011), *Current Stage of International Cooperation in the Arctic: Search for Answers to the Challenges of Economic Development* (Lipina et al., 2021), as well as issues such as cooperation between international organizations in the Arctic (Konyshov, 2011), many of which involve Sino-Russian cooperation in the Arctic. Chinese scholars have also conducted extensive research on Arctic international cooperation, including research on legal norms (Bai, Wang, 2020), cooperation mechanisms and cooperation opportunities (Deng et al., 2017; Liu et al., 2019). It is pointed out in (Kuklina, 2020) that Russia is an important partner for China to carry out Arctic cooperation.

It should be noted that academic achievements focusing on Sino-Russian Arctic cooperation are also abundant. For example, many Russian scholars discussed the theoretical and practical differences between China and Russia in the Arctic (Zagorsky, 2016). Although some Russian scholars are skeptical about China's Arctic strategy (Morozov, 2015), the majority of Russian scholars have a more positive attitude toward Sino-Russian Arctic cooperation. A.N. Pilyasov from the perspective of global and regional governance theory believes that China's Arctic strategy is a vision for the Arctic and a recognition of its participation in the Arctic from the perspective of globalization (Pilyasov, 2018). V.P. Zhuravel sees China's Arctic strategy as positive, commercial, and mostly friendly (Zhuravel, 2018). In general, Russian scholars recognize that modern Sino-Russian relations are based on equality, reciprocity, interests, respect and non-interference in domestic affairs (Kuznetsov, 2014). Sino-Russian Arctic cooperation is an important driving force for the sustainable development of the Arctic region (Pecheritsa, 2020; Petrovsky, Filippova, 2018). Sino-Russian Arctic cooperation has broad prospects and will continue to deepen (Camilla, 2017, Kolzina, Mindubaeva, 2020). Chinese scholars generally recognize the huge and unique development potential of bilateral cooperation between two countries based on the research of the composite interdependence theory, the hierarchy of needs theory, etc. (Voronenko, Bai, 2017, Guo, Yang, 2020). Xu Guangmiao pointed out that under the current geopolitical background, Russia and China should jointly face the challenges of the Arctic region (Xu, Klintsev, 2020).

However, most of the expectations of scholars for Sino-Russian Arctic cooperation are pinned in the field of Arctic energy and shipping. V.A. Alexandrova studied the realized Arctic energy cooperation projects and challenges they faced (Alexandrova, 2019). Kalfaoglu pointed out that Sino-Russian cooperation in the field of

Arctic shipping has great potential (Kalfaoglu, 2018). Although some scholars pointed out that China’s Arctic interests include scientific research, environmental protection, etc. (Hong, 2018). However, further research is needed on the specific cooperation situation in sustainable fields such as Arctic scientific research, environmental protection and polar tourism. Therefore, it is necessary to sort out the current situation regarding Sino-Russian Arctic sustainable cooperation, and, based on the analysis, put forward new opportunities and possible challenges so as to promote Sino-Russian Arctic sustainable cooperation.

Specific research methods include literature analysis and empirical research, as well as data forecasting. Through the interpretation of the official Arctic policies and academic achievements of China and Russia, the direction of cooperation in the field of Arctic sustainability is studied. Through empirical research on the current situation of cooperation, the challenges are analyzed. The prospects for cooperation are forecasted with the help of the data of the two countries’ interaction. Based on the methods used, it is concluded that Sino-Russian cooperation in the field of Arctic sustainability is still in its infancy, and in the current geopolitical context, new opportunities for Arctic cooperation between the two countries are emerging.

Current situation regarding Sino-Russian cooperation on the issue of sustainable development of the Arctic

Cooperation between Russia and China on the topic of sustainable development of the Arctic has been demonstrated in the official policies of both sides (Tab. 2):

In terms of specific issues, the current status of cooperation between the two countries is as follows:

Scientific research

At the official state level, joint Sino-Russian scientific research in the Arctic “normalized”

Since the first joint Sino-Russian scientific research in the Arctic in 2016, scientific research activities between two countries in the Russian Arctic have become “normalized” (Tab. 3). Among them, the First Institute of Oceanography MNR and the Pacific Oceanological Institute, Far Eastern Branch of RAS were the main participants. Nowadays, Chinese scientists have conducted comprehensive expeditions in a number of disciplines, including marine geology, physical oceanography and atmospheric chemistry, marking a historic breakthrough in Chinese-Russian scientific cooperation in the Arctic. Chinese research institutions also actively participate in Russian-led scientific research activities in the Arctic.

Table 2. Official statements of Russia and China on Arctic cooperation

Date	Official Statements	Contents	Key words
July 4, 2017	Sino-Russian Joint Statement on further deepening of the comprehensive strategic partnership for cooperation	For the first time, it is proposed to support cooperation in joint scientific expeditions, polar tourism and ecological protection.	Arctic sustainable development; scientific research; polar tourism; Ecological protection
June 8, 2018	Joint Statement of the PRC and the RF	Strengthening Sino-Russian cooperation on sustainable development of the Arctic, including support for cooperation in scientific research, tourism and ecology.	
June 5, 2019	Joint statement of China and Russia on the development of a new era of comprehensive strategic cooperative partnership	Promote Sino-Russian cooperation on sustainable development of the Arctic and expand cooperation in the fields of scientific research, tourism and ecological protection.	
February 4, 2022	Sino-Russian Joint Statement on international relations and sustainable global development in the new era	The two sides agreed to further deepen practical cooperation on sustainable development of the Arctic	

Source: own compilation according to the joint statements of China and Russia from 2017 to 2022.

Table 3. Sino-Russian joint scientific expeditions

Date	Description	Major place of scientific expedition	Chinese major participant	Russian major participant
August – September 2016	First joint Sino-Russian scientific expedition to the Arctic	Chukchi Sea, East Siberian Sea	First Institute of Oceanography MNR	Pacific Oceanological Institute, Far Eastern Branch of RAS
September – October 2018	Second joint Sino-Russian scientific expedition to the Arctic	Chukchi Sea, East Siberian Sea, Laptev Sea		
September – November 2020	Third Sino-Russian scientific expedition to the Arctic	Chukchi Sea, East Siberian Sea, Laptev Sea		

Source: Zou J., Jie X., Zheng H., Shi X. (2021). The fruitful cooperation between China and Russia in marine and polar regions—a chronicle of cooperation with Russia by the First Institute of Oceanography of the Ministry of Natural Resources. *International Talent Exchange*, 11, 20–22.

Russia and China have established partnership relations at the level of scientific institutions.

First, as mentioned above, the First Institute of Oceanography MNR and the Pacific Oceanological Institute, Far Eastern Branch of RAS have been cooperating on Arctic scientific research topics for a long time. In September 2017, two sides jointly established the Joint Research Center on Oceans and Climate in Vladivostok². Then in June 2018, following talks between both heads of States, the Chinese Academy of Sciences (CAS) and the Russian Academy of Sciences signed a cooperation agreement. In July 2019, a ceremony to sign a roadmap for cooperation was held in Moscow. The document provides a number of activities, such as joint maritime expeditions in the eastern Arctic to identify sources of methane emissions³.

Second, an Arctic scientific research center has been established at the official level. In April 2019, China and Russia signed an agreement to establish the Arctic Research Center. The Russian lead institution is Shirshov Institute of Oceanology of RAS, and the Chinese lead institution is Pilot

National Laboratory for Marine Science and Technology (Qingdao). The two sides planned to conduct at least five joint expeditions over the next five years⁴. In August 2019, Russian and Chinese researchers made the first joint expedition to the Arctic continental shelf located in the East Siberian Sea⁵.

China and Russia jointly participate in international polar scientific research activities

In addition to the guidance of official and scientific institutions, Russia and China actively participate in international scientific research activities under the multilateral framework of the Arctic Council and the International Arctic Science Committee (IASC). In 2017, the Agreement on Strengthening International Arctic Scientific Cooperation was signed among the Arctic Council member states. Russia as a major Arctic Council member state and China as an Arctic Council observer state both highly support international scientific cooperation activities, such as Multidisciplinary Drifting Observatory for the Study of Arctic Climate (MOSAiC), and Sustainable Arctic Observatory Network (SAON) project.

² Sino-Russian Joint Research Centre on Oceans and Climate to promote cooperation between the two countries in Arctic scientific research and other fields. October 10, 2017. Available at: <http://sputniknews.cn/society/201710101023773921/> (accessed: March 29, 2022).

³ The Russian Academy of Sciences and the Chinese Academy of Sciences will sign a roadmap for cooperation. July 18, 2019. Available at: <https://ria.ru/20190718/1556641478.html> (accessed: March 30, 2022).

⁴ Russia and China are creating a center for Arctic research. April 11, 2019. Available at: <https://ria.ru/20190411/1552576382.html> (accessed: March 30, 2022).

⁵ Scientists from Russia and China will study the Arctic shelf of Siberia during the first joint expedition. August 5, 2019. Available at: <https://tass.ru/nauka/6733215> (accessed: March 30, 2022).

Ecological and environmental protection

Cooperation between Russia and China in the field of ecological protection started in the early 1990s and has been advancing, especially on the topic of transboundary water pollution prevention and control. However, specifically in the Arctic, China and Russia have not yet formed a stable framework for cooperation, and only cooperate at the level of bilateral scientific institutions. For example, in June 2019, the government of Yamalo-Nenets Autonomous Okrug of Russia and the ecological and environmental research center CAS signed a memorandum to implement joint projects on conservation of migratory birds⁶.

Of course, China and Russia share many similar characteristics and common problems in the geographic and ecological fields. The achievements of cooperation between two countries in the field of ecology and environmental protection will also provide experience to expand cooperation in the Arctic ecological and environmental protection (Yang, Zhao, 2019).

At the official level, ecological and environmental issues are given high priority

The issue of ecological protection has always been a key topic of discussion at the meetings of the Russian-Chinese Prime Minister's Committee for regular meetings. The two sides have been interacting extensively on the mechanism of response to cross-border environmental emergencies, exchanging experience on environmental impact assessment, and developing cooperation on cross-border ecological and natural reserves. Specifically, the Amur River Basin Nature Reserve and the Bastak Reserve on the Russian side and the Three Rivers – Hun River, Hunchun and Wangqing Nature Reserves on the Chinese side were discussed. In addition, the two sides have reached a broad

⁶ Scientists from China and Russia will study the migration of rare birds and conduct research on the population of the Siberian Crane. June 16, 2019. Available at: <https://tass.ru/ural-news/6555550> (accessed: March 25, 2022).

consensus on cooperation in protecting tigers and restoring migratory birds, and are actively carrying out joint activities in the Daur and Lake Khanka international nature reserves⁷.

Russia and China are actively cooperating on the monitoring of transboundary water bodies.

For many years, Russia and China have been maintaining long-term interdepartmental cooperation around the issue of monitoring transboundary waters, especially since 2006, the two sides have been insisting on joint sampling from the Heilongjiang (Amur River), Ussuri, Erguna, Suifen (Razdolynaya River) and Xingkai (Lake Khanka) located on the Russian-Chinese border to monitor river water quality and maintain ecological safety in the border river basin, and have made significant achievements. As a result of active work, in 2018 the Russian side reduced 35.89 million cubic meters of emissions to 687.2 million cubic meters⁸. Also belonging to transboundary water bodies, cooperation on protection of the Heilongjiang River (Amur River) provides experience for the joint work on protection of transboundary water resources of the Irtysh-Obi River, which flows through the Arctic regions of China, Kazakhstan and Russia (Mei, Guo, 2017).

At the level of multilateral/bilateral mechanisms, China and Russia have a broad foundation of cooperation

First, at the level of multilateral mechanisms, the UN Charter, UN Convention on the Law of the Sea, Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972), International Convention for the Prevention of Pollution from Ships (1973/1978),

⁷ Cooperation between Russia and China in the field of environmental protection and rational use of natural resources will develop. November 7, 2018. Available at: https://www.mnr.gov.ru/press/news/sotrudnichestvo_rossii_i_kitaya_v_oblasti_okhrany_okruzhayushchey_sredy_aktivno_razvivaetsya/ (accessed: March 25, 2022).

⁸ Russia reduces 35.8 million cubic meters of sewage to the Amur River in 2018. June 17, 2019. Available at: <http://sputniknews.cn/society/201906171028773005/> (accessed: March 25, 2022).

International Convention on Oil Pollution Preparedness, Response and Cooperation (1990) provide legal support for the expansion of ecological and environmental cooperation between Russia and China in the Arctic region.

At the level of bilateral mechanisms, two sides have concluded numerous documents on cooperation in the field of ecological and environmental protection issues, including the Agreement in the field of Environmental Protection (1994), Declaration on Protection of the Tiger (1995), Agreement on Cooperation about Forest Resources (2000), Agreement on Rational Use and Protection of Transboundary Water Resources (2008), which provide legal guidelines for bilateral cooperation in the Arctic region (Rednikova et al., 2018).

Under the background of the dramatic impact of global climate change, Russia is committed to regulating pollution in the Arctic and protecting the natural environment of the Arctic (Savostova, Biryukov, 2019). As China is an active participant in Arctic affairs, the changes of Arctic environment are closely related to China's development fate. Cooperation on Arctic ecological and environmental issues will not only provide effective protection of the unique natural environment, but also feed the economic cooperation between the two countries.

Polar tourism

Due to the lack of tourism infrastructure, the number of tourists visiting the Russian Arctic is low compared to the rest parts of Russia, with almost 1.2 million tourists visiting the Arctic in 2019, which is less than 1% of the total number of tourists in Russia. In order to stimulate the development of polar tourism, Russia's strategy for the development of Russia's Arctic region was released with the aim of promoting new economic activities in the Arctic and developing polar tourism.

Among the Arctic region, the Murmansk Oblast is a leader in the flow of tourists to the Russian

Arctic⁹. Murmansk has shown active performance in development of polar tourism cooperation. In April 2019, Murmansk Arctic State University announced cooperation with China in polar tourism¹⁰. In November 2019, Murmansk hosted the international conference "Arctic Vision", which attracted tour operators from China¹¹. It can be seen that China and Russia still have a broad basis for polar tourism cooperation.

By reviewing the current situation of Sino-Russian cooperation on Arctic sustainable development issues – scientific research, ecology and tourism – the following features can be summarized: 1) cooperation in the field of Arctic scientific research is well developed and is expected to be further deepened in the future; 2) cooperation in the field of ecology and environmental protection is currently focused on the protection of transboundary water resources, and the successful experience and legal documents can provide the basis for cooperation to expand their interaction in the Arctic region; 3) cooperation in the field of polar tourism is still in its initial stage, but two sides can further explore multi-project tourism cooperation.

New opportunities for cooperation between the two sides during the Russian chairmanship of the Arctic Council

The concept of sustainable development has been a consistent approach of the Arctic Council since its establishment. During Russia's chairmanship of the Arctic Council, Russia may actively develop a chairmanship agenda in line with the Arctic Council development concept.

⁹ YNAR, Murmansk and Arkhangelsk regions have become leaders in terms of tourist flow in the Arctic regions of Russia. June 4, 2020. Available at: <https://ru.arctic.ru/tourism/20200604/946049.html> (accessed: March 25, 2022).

¹⁰ Eurasian Arctic Centre plans joint development project with China. April 17, 2019. Available at: <http://sputniknews.cn/society/201904171028218668/> (accessed: March 25, 2022).

¹¹ Tour operators from China and Thailand will come to Murmansk for the Arctic Horizons. November 7, 2019. Available at: <https://nord-news.ru/news/2019/11/06/?newsid=116653> (accessed: March 25, 2022).

Therefore, Russia is bound to pay more attention to sustainable issues, such as scientific research, ecology and tourism. Thus, there is a potential space for cooperation in the following sustainable development projects:

Arctic scientific research: “Snowflake” International Arctic Station

The “Snowflake” International Arctic Station is a research project led by Moscow Institute of Physics and Technology, which is scheduled to be established in Yamalo-Nenets Autonomous Okrug in 2022, and to provide a practical platform for discussions on sustainable development topics between Russia and its international partners in the framework of the Arctic Council¹². Russia is actively seeking international cooperation. A cooperation fund has been established with South Korea for the development of hydrogen energy based on the “Snowflake” Arctic Station. Russia has also shown interest in inviting China to participate in the project. Vasiliev, who is leading the project, has said that “China can contribute to the construction of the international Arctic station and the two sides are discussing joint cooperation”¹³.

In the context of global energy market transformation, China is also actively responding to the strategy of promoting clean, low-carbon, safe and efficient use of energy, as a green and clean energy source, is expected to become an emerging strategic energy industry in China. Therefore, both sides have the potential to cooperate.

Arctic ecological and environmental protection field: Technical cooperation for environmental monitoring system

In May 2020, a diesel fuel storage tank at Norilsk-Tamil Energy was damaged when its columns suffered sinking, resulting in a fuel spill of

about 21,000 cubic meters¹⁴. This was the largest known spill of petroleum products in the Russian Arctic, causing irreversible damage to the local ecosystem. According to the company involved, Norilsk, the main cause of the accident was melting of permafrost that caused the support tank to shift. The Arctic ecosystem is fragile and global climate change could lead to severe environmental damage in the Arctic (Bai et al., 2020).

The Norilsk accident demonstrates the importance of ecological protection and establishing a permanent monitoring mechanism for the effects of environmental change in the Arctic. The RF President Vladimir Putin said a system for monitoring permafrost conditions in the Arctic and predicting the risk of permafrost melting should be rebuilt. China may participate in the project and seek cooperation in technical and other fields. Permafrost is also found in China and can be divided into high-latitude and high-altitude permafrost, such as Changbai Mountains, Wutai Mountains. The cooperation between two countries will be mutually beneficial.

Polar tourism: the Russian Arctic National Park

According to statistics, China is the most visited country in the Russian Arctic (*Fig. 3*). Chinese tourists have great interest in Arctic scenery, therefore the Russian Arctic National Park will be a good project for cooperation (Kuklina, Cheban, 2019). Russian Arctic National Park (Arkhangelsk Oblast) is the largest nature reserve in Russia, established to preserve the cultural, historical and natural heritage of the western Arctic region of Russia¹⁵. Every summer, tourists from all over the

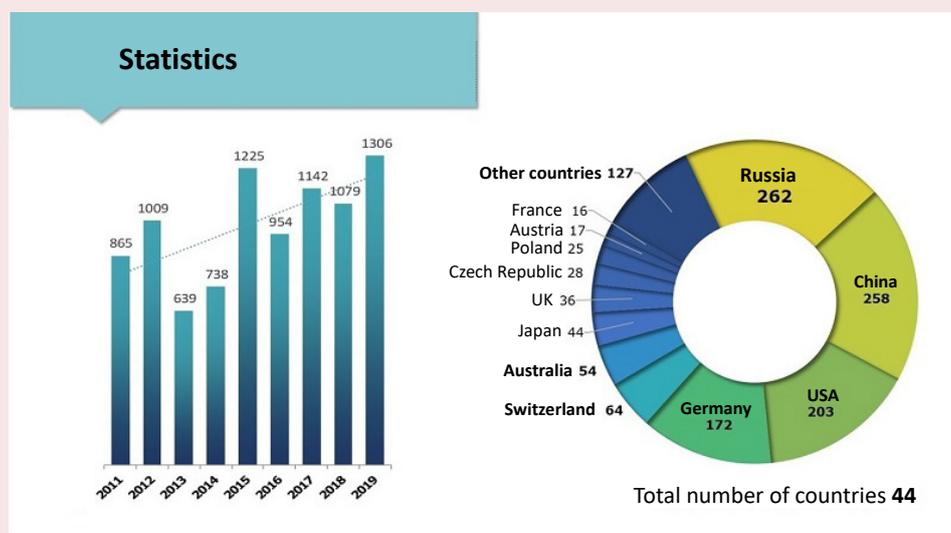
¹² For more information, see the Snowflake Arctic Station website: <https://arctic-mipt.com/>

¹³ Russian expert: China may participate in building international Arctic station in Russia. January 21, 2020. Available at: <http://sputniknews.cn/society/202001211030492192/> (accessed: March 25, 2022).

¹⁴ What will be pulled after the accident near Norilsk. June 20, 2019. Available at: https://www.kommersant.ru/doc/4366214?utm_source=yxnews&utm_medium=desktop&utm_referrer=https%3A%2F%2Fyandex.ru%2Fnews&fbclid=IwAR3o-qLKNPh-FNtmCFyHaBxEguQLbZ_aHlHsHgY-Nfe0rtTYAZZ0F7_RhL8#id1905469 (accessed: March 23, 2022).

¹⁵ Arkhangelsk Oblast Acting Governor Alexander Tsybulsky examines Russian Arctic Park’s projects. June 1, 2020. Available at: <https://arctic.ru/infrastructure/20200601/945736.html> (accessed: March 23, 2022).

Figure 3. Countries visiting the Russian Arctic National Park in 2019



Source: 1,306 people from 44 countries visited the territory of the Russian Arctic National Park in the summer of 2019. See official website of the Russian Arctic National Park. Available at: <http://www.rus-arc.ru/ru/Tourism/Statistics> (accessed: May 3, 2022).

world visit the park by icebreakers. Chinese tourists are no strangers to the Russian Arctic National Park, one-third of the world's visitors to the national park are Chinese citizens, and the number has grown rapidly in recent years (*Fig. 3*)¹⁶.

The park is currently working on the construction of an interactive Arctic museum and visitor center, and it is expected that two modern complexes will be built in the Frans Josef Land archipelago and Novaya Archipelago for tourism development and scientific research. Therefore, at the official level, two sides can conclude a memorandum on tourism cooperation and give administrative support to tourists in terms of policy such as relaxation of visa restrictions; at the enterprise level, promote a comprehensive interface between businesses engaged in tourism activities on both sides to improve the visitor experience.

Nowadays, the geopolitical situation in the world has become more complicated, the Ukraine

¹⁶ Data from official website of the Russian Arctic National Park. Available at: <http://www.rusarc.ru/ru/Tourism/Statistics> (accessed: March 23, 2022).

crisis has led to a freezing point in relations between Russia and the U.S.-led Western countries, even affecting Russia's influence in the Arctic region, forcing Russia to gradually turn its attention to cooperation with China and other observer states to maintain its influence in the Arctic. From China's point of view, cooperation with Russia in the Arctic will help China to demonstrate itself as a responsible power. Therefore, China and Russia have broader prospects for cooperation on Arctic issues, especially sustainable development issues.

Difficulties in the development of new directions of Russian-Chinese Arctic cooperation

The challenges to Sino-Russian Arctic cooperation have been studied by Chinese and international scholars (Kirilenko, Lebedev, 2019), and the general view can be summarized as follows: on the one hand, Russia is cautious about China's involvement in the Arctic, fearing that China's participation will weaken Russia's Arctic dominance (Gudev, 2018); on the other hand, China has doubts about investing capital and technology in the Arctic due to the severe natural conditions in

the Russian Arctic and national policy restrictions. Specifically on the issue of sustainable development of the Arctic, the new direction of Sino-Russian cooperation faces the following challenges:

Internal factor: How does Russia balance Arctic ecology and environmental protection with mineral resource development?

Sustainable development is a key goal for Russia's development in the Arctic region. Russian President Vladimir Putin has emphasized the concept of sustainable development in public, saying that he will pay attention to the ecological protection of the Arctic (Lassi, Alexander, 2022). In this context, Russia has proposed to support projects to reduce emissions and address the consequences of accumulated environmental damage in the Arctic¹⁷. At the same time, it has suspended cooperation projects with China, citing fears of environmental damage (Zhao, 2018). The Chinese methanol plant project in the Far East region was suspended because it failed to pass the residents' review, and the government said it would respect the residents' wishes¹⁸. This shows the high level of attention given to environmental protection at the official level in Russia.

However, it is noteworthy that Russia has not given up the development of mineral resources while showing the importance of environmental protection, especially when there is a conflict between the development of mineral resources and environmental protection in the Arctic, the Russian government has shown a tendency to give priority to the development of mineral resources. For example, the Russian government plans to amend the

legislation to allow private investors to participate in Arctic shelf oil and gas development projects¹⁹. The attitude of the Murmansk Oblast government in the case of negative impacts of Gazprom's resource development project (the Shtokman condensate field extraction project) on the bird habitat of the Teriberka Nature Reserve – that it does not see a threat to the future nature park from the gas field extraction project²⁰, shows that the priority given to mineral resources development between mineral resources development and Arctic ecological protection at the local level.

The analysis shows that the suspension of Russian cooperation projects with China on environmental grounds seems to be an isolated case, and there are more examples that prove in reverse that mineral resource development in the Arctic remains an important concern for the development of the Arctic and has a tendency to take precedence over Arctic environmental protection. In this context, will the depth of cooperation between Russia and China on the issue of sustainable development in the Arctic be affected? The key factor affecting the cooperation is how Russia to balance the ecological and environmental protection of the Arctic with the development of mineral resources.

External factor: Arctic militarization trends distract Russia from developing the Arctic

As all know, there is a growing atmosphere of militarization in the Arctic (Tab. 4), the main reason is the deterioration of relations between Russia and Western countries led by the United States after the Ukraine crisis in 2014. The U.S. government perceives Russia as a competitor that

¹⁷ Russian Arctic Council Chairmanship: "Will Welcome more Active Engagement of the Observer States". March 8, 2021. Available at: <https://www.highnorthnews.com/en/russian-arctic-council-chairmanship-will-welcome-more-active-engagement-observer-states> (accessed: March 27, 2022).

¹⁸ Residents of Russia's Khabarovsk Krai do not support Chinese company's project to build methanol plant. March 22, 2021. Available at: <http://sputniknews.cn/russia/202103221033318617/> (accessed: March 29, 2022).

¹⁹ A bill to abolish environmental impact assessments for boreholes in the Arctic has been supported by the government. April 29, 2021. Available at: <https://ru.arctic.ru/ecology/20210429/993062.html> (accessed: March 26, 2022).

²⁰ Gazprom refused to transfer the subsoil areas of the Shtokman project to the Teriberka natural park. March 16, 2021. Available at: <https://pro-arctic.ru/16/03/2021/news/42998#read> (accessed: March 26, 2022).

Table 4. Military activities of Arctic States in the Arctic in 2018–2022

Year	Russia	U.S. (NATO)
2018	Military exercises: annual readiness exercise of Russia's Strategic Forces	Military exercises: Trident Junction 2018; Ice Exercise 2018 Norex; Dynamic mongoose
	Construction of new electronic warfare center	Reboot US Navy 2nd Fleet
2019	Military exercises: Northern Fleet Exercises in the Barents Sea; Nuclear submarine exercises; Tsentr-19; Ocean Shield 2019; Thunder 2019	Military exercises: Arctic Expeditionary Force Capability Exercise; ICEX Exercise; Bold Quest; Aerial military exercises in the Arctic Circle
	Construction of Northern Clover military base	Construction of Military radar facility in Vardø, Norway Construction of temporary long-range maritime operations center in Iceland
	Deployment of electronic warfare systems	Released new edition of Arctic Strategic Outlook of Coast Guard; DoD Arctic Strategy; US Navy Arctic strategy; DHS Arctic Strategic Approach
2020	Military exercises: Ocean Shield exercise; Northern Fleet Tactical Exercise; Northern Fleet Anti-Submarine Warfare Exercise	Military exercises: Dynamic Mongoos; Reindeer II; Cold Response 2020 FONOP: NATO warships entered Russian Arctic waters
	Established interdepartmental committee for safeguarding Arctic national interests under the framework of security conference meeting	Released US Air Force Arctic Strategy High-intensity approach flight operations against Russia
2021	Military exercise: Umka-21; Zapad-21	Military exercise: Vintersol 2021; Formidable Shield; Dynamic Mongoose; Arctic Fighter Meet 21
	Upgrade Northern Fleet became its fifth military district	Update the agreement between Norway and the United States on defense cooperation
	Launched new hypersonic Tsirkon cruise missile	Sent B-1B bombers to Norway for the first time
	Modernization of military air bases in the Arctic	Established the Ted Stevens Center for Arctic Security Studies
2022	Military exercise: Military missile of Northern Fleet firing exercise	Military exercise: Cold Response 2022

Source: own compilation according to news from NATO website and report of SIPRI: Ian Anthony, Ekaterina Klimenko, Fei Su. A Strategic Triangle in The Arctic? Implications of China–Russia–United States power dynamics for regional security. *SIPRI Insights on Peace and Security*. No. 2021/3. March 2021.

openly “challenges U.S. power” and a “spoiler of Arctic peace” (Trenin, 2020). In May and September 2020, the U.S., together with NATO allies (the UK, Norway, Denmark, etc.), conducted military exercises in the Barents Sea, with allied ships entering Russia’s exclusive economic zone during the September exercise²¹, demonstrating the U.S.-led NATO bloc’s determination to enter Arctic waters (Erokhin, 2020). Russia also responded, including upgrading the Northern Fleet to Russia’s fifth largest military region, reopening

²¹ In a controversial move, Norway sails frigate into Russian Arctic EEZ together with UK, US navy ships. September 9, 2020. Available at: <https://www.arctictoday.com/in-a-controversial-move-norway-sails-frigate-into-russian-arctic-eez-together-with-uk-us-navy-ships/> (accessed: March 26, 2022).

Arctic military bases. While each side says its actions are purely defensive and forced, leading to a peculiar phenomenon in the Arctic, All countries are saying that “the Arctic is a zone of peace and stability”, while all parties are accelerating the transformation of the Arctic into a theater of military operations. The “militarization” is gradually turning the Arctic into a place of military confrontation.

The militarization of the Arctic will inevitably affect the development of the Russian Arctic region. On the one hand, the militarization of the Arctic region will trigger serious alarm among international investors, they may not be determined to make large-scale investments in the Russian Arctic, even the development of projects on the topic of sustainable development. On the other hand,

as a key “influencer” in the militarization of the Arctic, Russia will certainly devote more energy to issues related to military operations in the Arctic, which will certainly lead to the lack of necessary support for economic development in the Arctic region, which will ultimately affect the cooperation projects. Therefore, the unstable international situation in the Arctic will become an important external factor hindering the cooperation between Russia and China in the Arctic.

Incidental factor: Global spread of epidemic puts limits on Sino-Russian Arctic cooperation.

From late March 2020, the COVID-19 spread rapidly across Russia. Until now, the cumulative number of infected cases in Russia has reached 10 million. The full spread of the epidemic also affects the international cooperation in the Russian Arctic.

First of all, the epidemic has caused widespread infection of employees at the Arctic project plants, which has led to the stagnation of projects and hindered the process of infrastructure construction and project development in the Arctic region. At the same time, as the epidemic swept across the globe, foreign capital had to make a more conservative choice and withdraw from international cooperation projects in the Arctic, which gave a negative impact on the sustainable development of the Arctic region. Second, the epidemic prevention and control measures bring heavy obstacles to the development of cooperative projects. The importance attached to the prevention and control of the new coronavirus has also affected the development of Sino-Russian scientific expeditions in the Arctic, for example, the joint Sino-Russian scientific expedition and cooperative polar tourism projects have been postponed.

In summary, although the Russian chairmanship of the Arctic Council has created new directions for Sino-Russian cooperation on the issue of sustainable development of the Arctic, the negative impact of the external trend of militarization of the Arctic region, and the global spread of the epidemic all

pose many problems for Sino-Russian cooperation in the Arctic.

Conclusion

For a long time, Sino-Russian cooperation has relied on the strategic leadership of the heads of both countries, but there is still a lack of consensus and endogenous driving force for cooperation from the political elite in both countries, while there is still a “China-phobia” on specific economic issues (Alexeeva, Lasserre, 2018). In particular, on the issue of sustainable development, Russia does not have a deep understanding of China’s image of cooperation and believes that China is not keen on issues related to environmental protection, nor is it willing to spend energy and financial resources on them. From the abovementioned point of view, it is clear that Russia and China still have a long way to go in terms of cooperation on the issue of sustainable development in the Arctic.

Today, world geopolitical situation has changed dramatically, and behind the Russian-Ukrainian conflict is a drastic change in the geopolitical pattern of the entire European region. While the arctic geopolitics is the epitome of the geopolitical changes in Europe. The systemic crisis of Russia’s relations with the West will inevitably affect the change of the Arctic geopolitical pattern, and even lead to Russia’s Arctic role being isolated by other “Arctic 7” countries, then the Arctic has become a new stage for great power political games. In this context, cooperation with countries in Northeast Asia will be an important starting point for Russia to maintain the influence of Arctic powers, and certainly China plays a key role in it. China has always stressed its willingness to work with Russia to deepen cooperation in sustainable areas such as Arctic scientific expeditions, ecological protection and polar tourism.

While the international community has often criticized the lack of intrinsic motivation for Sino-Russian cooperation, Russia is well aware that China has always been an irreplaceable and

powerful player for Russia, whether in terms of capital, technology or market demand. In March 2021, Sergey Lavrov gave a joint interview to Chinese media and clearly stated that “for us, China is a real strategic partner and like-minded nation, and our cooperation in the international arena will help stabilize the global and regional situation”²². Under the development of friendly relations between the two countries, the sustainable Sino-Russian Arctic cooperation will build on the existing achievements and make new achievements in the fields of scientific research, environmental protection and polar tourism.

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²² Interview by Minister of Foreign Affairs of the Russian Federation Sergey Lavrov to the Chinese media. March 22, 2021. Available at: https://archive.mid.ru/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/4646592 (accessed: March 26, 2022).

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