



IMPLEMENTING THE GLOBAL GOVERNANCE INITIATIVE

China-Russia Cooperation in Arctic Governance—
Concepts, Practices and Communications

Presented by

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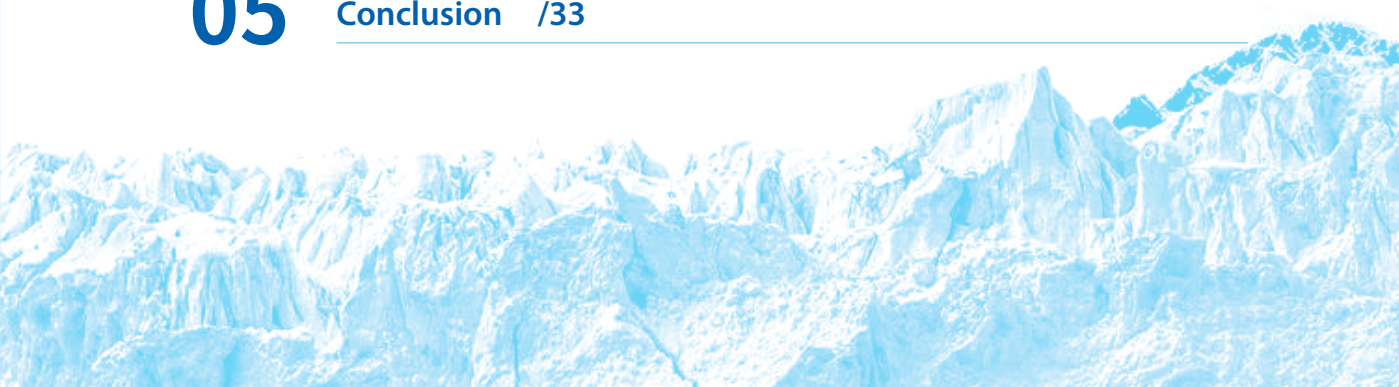
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01

Foreword

The Arctic belongs to all humankind, and its governance requires extensive consultation, joint contribution, and shared benefits—the principles upheld in global governance. This remote territory, covered by ice and snow, is not only a “regulator” of the Earth’s climate system and a “reservoir” of global resources, but also a precious heritage shared by all humanity. With the intensification of global warming, the Arctic ice is melting at an accelerated pace. In this context, its strategic and economic values as well as those relating to scientific research, shipping routes and other fields are becoming increasingly prominent. The region is moving from the periphery of the Earth to the center stage of international geopolitics. However, behind this rising value, Arctic governance is facing unprecedented and complex challenges: the ecological crisis triggered by climate change continues to spread, conflicts between resource utilization and environmental protection become more pronounced, contest for rule-making authority over the use of shipping routes is escalating, and geopolitical factors are adding uncertainty into regional cooperation. How to achieve a balance between scientific protection and rational utilization, and build a just and reasonable governance system for the Arctic while maintaining its peace and stability, is now a major issue concerning the common interests of all humankind.

As an “important stakeholder in Arctic affairs”, China has always been an active participant, builder and contributor in Arctic governance. From early involvement in Arctic scien-

tific expeditions to current in-depth cooperation in energy development, shipping route infrastructure, ecological protection and other areas, China, throughout its operations in the region, has consistently adhered to the core principles of “respect, cooperation, win-win result and sustainability” and has practiced the vision of global governance featuring extensive consultation and joint contribution for shared benefit. China is one of the earliest countries to participate in Arctic affairs. Its involvement in Arctic governance is driven by its own development needs while being fully supported by international law. More importantly, it carries the responsibility of safeguarding the common interests of all humankind and advancing the building of a community with a shared future for humanity.

In March 2025, the Academy of Contemporary China and World Studies, the Beijing Club for International Dialogue, the Institute for China-America Studies (US) and the Russian International Affairs Council jointly launched a themed research initiative on “Arctic Governance” during the 2025 China-Russia Sanya Dialogue. This initiative came just in time. Over the past year, the research team, upholding an objective and neutral stance, has extensively gathered insights from government officials, experts and scholars, company representatives, and journalists in China, the US, Russia and other countries through multiple channels. It has organized dialogues and seminars among think-tank experts, conducted field research with enterprises such as China COSCO Shipping Corporation Limited, and hosted the sub-forum “China’s Arctic Relations: Strategic Competition & Pragmatic Cooperation” at the 2025 Arctic Circle Assembly. On this basis, the study comprehensively reviews China’s practical engagement in Arctic governance, systematically analyzes the opportunities and challenges currently facing Arctic governance, and offers forward-looking perspectives on its future development, culminating in the preparation of this report.

The report clearly points out that China has consistently participated in Arctic affairs with an open and inclusive approach. Through deepened cooperation with Russia and other relevant countries in areas such as energy development, shipping route utilization and infrastructure construction, China has not only brought significant strategic opportuni-

ties to all parties, but also contributed valuable stability and certainty to Arctic governance and global maritime governance during a period of turbulence and transformation. In the face of the complex situation and multiple challenges in Arctic governance, the report emphasizes that only by upholding multilateralism, strengthening international cooperation and building a consensus-based discourse system can we advance Arctic governance in a more just, reasonable and sustainable manner, thereby making the Arctic a truly “polar region of peace, cooperation and development” that benefits all humankind.

02

China's Arctic Policy in the New Era: Goals, Principles, and Positions

As economic globalization and regional integration further develop and deepen, the Arctic is gaining global significance for its rising strategic, economic values and those relating to scientific research, environmental protection, sea passages and natural resources. The Arctic situation now goes beyond its original inter-Arctic States or regional nature, having a vital bearing on the interests of States outside the region and the interests of the international community as a whole, as well as on the survival, the development and the shared future for humankind. It is an issue with global implications and international impacts. China is an active participant, builder and contributor in Arctic affairs who has spared no efforts to contribute its wisdom to the development of the Arctic region. The white paper China's Arctic Policy, issued in 2018, elaborated on China's policy goals, basic principles and major policies and positions regarding its engagement in Arctic affairs, laying a solid foundation for China-Russia cooperation in the Arctic in the new era.

(I) China's participation in Arctic affairs: policy goals

China's policy goals on the Arctic are: to understand, protect, develop and participate in the governance of the Arctic, so as to safeguard the common interests of all countries

and the international community in the Arctic, and promote sustainable development of the Arctic.

To understand the Arctic, China will improve the capacity and capability in scientific research on the Arctic, pursue a deeper understanding and knowledge of the Arctic science, and explore the natural laws behind its changes and development, so as to create favorable conditions for humankind to better protect, develop, and govern the Arctic.

To protect the Arctic, China will actively respond to climate change in the Arctic, protect its unique natural environment and ecological system, promote its own climatic, environmental and ecological resilience, and respect its diverse social culture and the historical traditions of the indigenous peoples.

To develop the Arctic, China will improve the capacity and capability in using applied Arctic technology, strengthen technological innovation, environmental protection, resource utilization, and development of shipping routes in the Arctic, and contribute to the economic and social development of the Arctic, improve the living conditions of the local people and strive for common development.

To participate in the governance of the Arctic, China will engage in regulating and managing the affairs and activities relating to the Arctic on the basis of rules and mechanisms. Internationally, China is committed to the existing framework of international law including the UN Charter, United Nations Convention on the Law of the Sea (UNCLOS), treaties on climate change and the environment, and relevant rules of the International Maritime Organization, to addressing various traditional and non-traditional security threats through global, regional, multilateral and bilateral mechanisms, and to building and maintaining a just, reasonable and well-organized Arctic governance system. Domestically, China will regulate and manage Arctic-related affairs and activities within its jurisdiction in accordance with the law, steadily enhance its ability to understand, protect and develop the Arctic, and actively participate in international cooperation in Arctic affairs.

Through all the above efforts to understand, protect, develop and participate in the

governance of the Arctic, China will work with all other countries to build a community with a shared future for humanity in the Arctic region. While pursuing its own interests, China will pay due regard to the interests of other countries and the broader international community, bear in mind the importance of the protection and development of the Arctic, and of keeping in proper balance its current and long-term interests, so as to promote the sustainable development of the Arctic.

(II) China's participation in Arctic affairs: basic principles

In order to realize the above-mentioned policy goals, China will participate in Arctic affairs in accordance with the basic principles of “respect, cooperation, win-win result and sustainability”.

“Respect” is the key basis for China's participation in Arctic affairs. Respect should be reciprocal. It means all States should abide by international treaties such as the UN Charter and the UNCLOS, as well as general international law. They should respect the sovereignty, sovereign rights, and jurisdiction enjoyed by the Arctic States in this region, respect the tradition and culture of the indigenous peoples, respect the rights and freedom of non-Arctic States to carry out activities in this region in accordance with the law, and respect the overall interests of the international community in the Arctic.

“Cooperation” is an effective means for China's participation in Arctic affairs. It means establishing a relationship of multi-level, omni-dimensional and wide-ranging cooperation in this area. Through global, regional, multilateral and bilateral channels, all stakeholders—including States from both inside and outside the Arctic, intergovernmental organizations, and non-state entities—are encouraged to take part in cooperation on climate change, scientific research, environmental protection, shipping route development, resource utilization and cultural activities.

“Win-win result” is the value pursuit of China’s participation in Arctic affairs. It means all stakeholders in this area should pursue mutual benefit and common progress in all fields of activities. Such cooperation should ensure that the benefits are shared by both Arctic and non-Arctic States as well as by non-state entities, and should accommodate the interests of local residents including the indigenous peoples. It should also help to promote coordinated development of activities in all fields to ensure the harmony between natural conservation and social development.

“Sustainability” is the fundamental goal of China’s participation in Arctic affairs. This means promoting the sustainable development of the Arctic by ensuring the sustainability of environmental protection, resource utilization and human activities in the area. It means realizing harmonious coexistence between humanity and nature, better coordination between ecological protection, economic growth and social progress, better balance between utilization, management and protection, and intergenerational equity.

(III) China’s participation in Arctic affairs: policies and positions

When participating in Arctic affairs, China prioritizes scientific research, underscores the importance of environmental protection, rational utilization, law-based governance and international cooperation, and commits itself to maintaining a peaceful, secure and stable Arctic order.

1. Deepening the exploration and understanding of the Arctic

The Arctic holds great value for scientific research. To explore and understand the Arctic serves as the priority and focus for China in its Arctic activities.

China actively promotes scientific expedition and research in the Arctic. China re-

spects the Arctic States' exclusive jurisdiction over research activities under their national jurisdiction, maintains that scientific research in areas under the jurisdiction of Arctic States should be carried out through cooperation in accordance with the law, and stresses that all States have the freedom of scientific research on the high seas of the Arctic Ocean. China is actively involved in multi-disciplinary research including Arctic geology, geography, ice and snow, hydrology, meteorology, sea ice, biology, ecology, geophysics and marine chemistry. It actively participates in monitoring and assessing local climatic and environmental changes, and carries out multi-level and multi-domain continuous observation of atmosphere, sea, sea ice, glaciers, soil, bio-ecological character and environmental quality through the establishment of multi-element Arctic observation system, construction of cooperative research (observation) stations, and development of and participation in the Arctic observation network. China is committed to improving its capacity in Arctic expedition and research, strengthening the construction, maintenance and functions of research stations, vessels and other supporting platforms in the Arctic, and promoting the building of icebreakers for scientific purposes.

China supports and encourages research activities in the Arctic by constantly increasing investment in scientific research, building modernized research platforms, and improving the capacity in, and level of, research on the Arctic. It is making a greater effort to advance research in the fields of natural science, climate change and ecological environment, accelerate the development of basic subjects such as physics, chemistry, life science and earth science, strengthen social science research including Arctic politics, economy, law, society, history, culture and management of Arctic activities, and promote innovation in both natural and social sciences. It is also working to strengthen personnel training and public awareness of the Arctic, support higher learning and research institutions to train professionals specialized in natural and social sciences on the Arctic, build science popularization and education centers, and publish cultural products on the Arctic to improve public knowledge. It actively promotes international cooperation on Arctic research, pushes for

an open and inclusive international monitoring network of the Arctic environment, supports pragmatic cooperation through platforms such as the International Arctic Science Committee, encourages Chinese scientists to carry out international academic exchanges and cooperation on the Arctic, and encourages Chinese higher learning and research institutions to join the network of the University of the Arctic.

China encourages the development of environment-friendly polar technical equipment, actively participates in the building of infrastructure for Arctic development, pushes for the upgrade of equipment in the fields of deep sea exploration, ice zone prospecting, and atmosphere and biology observation, and promotes technology innovation in Arctic oil and gas drilling and exploitation, renewable energy development, navigation and monitoring in ice zones, and construction of new-type icebreakers.

2. Protecting the eco-environment of the Arctic and addressing climate change

China follows international law in the protection of the natural environment and ecosystem of the Arctic and conservation of its biological resources, and takes an active part in addressing the challenges of environmental and climate change in the Arctic.

2.1 Protecting the environment

China always gives top priority to resolving global environmental issues, earnestly fulfills its obligations under relevant treaties, and discharges its responsibility of environmental protection. China is actively engaged in improving the Arctic environment by enhancing the environmental background investigation of Arctic activities and the assessment of their environmental impact. It respects the environmental protection laws and regulations of the Arctic States and calls for stronger environmental management and cooperation.

The marine environment is a key area for Arctic environmental protection. China sup-

ports the Arctic coastal States in their efforts to reduce pollutants in the Arctic waters from land-based sources, in accordance with the relevant treaties, and commits itself to raising the environmental responsibility awareness of its citizens and enterprises. In order to effectively protect the marine environment of the Arctic, China works with other States to enhance control of the sources of marine pollution such as ship discharge, offshore dumping, and air pollution.

2.2 Protecting biodiversity

The Arctic is home to several endangered species of wild fauna and flora. China attaches importance to the sustainable development and biodiversity protection of the Arctic. It conducts scientific evaluation of the impact on the Arctic ecological system caused by global climate change and human activities, strengthens protection of migratory birds and their habitats, organizes research on the migration patterns of Arctic migratory birds, improves the adaptability and resilience of the Arctic ecological system, and advances international cooperation in the protection of Arctic species of fauna and flora.

2.3 Addressing climate change

Addressing climate change in the Arctic is an important part of global climate governance. China consistently takes the issue of climate change seriously. It has included measures to deal with climate change such as Nationally Determined Contributions in its overall national development agenda and planning, and has made significant contributions to the conclusion of the Paris Agreement. China's emission reduction measures have a positive impact on the climatic and ecological environment of the Arctic. China is committed to studying the substance and energy exchange process and mechanisms of the Arctic, evaluating the interaction between the Arctic and global climate change, predicting potential risks posed by future climate change to the Arctic's natural resources and ecological environment, and advancing Arctic cryospheric sciences. It strengthens publicity and

education on addressing climate change to raise the public's awareness of the issue, and promotes international cooperation in addressing climate change in the Arctic.

3. Utilizing Arctic resources in a lawful and rational manner

The Arctic has abundant resources, but a fragile ecosystem. China advocates protection and rational use of the region and encourages its enterprises to engage in international cooperation on the exploration for and utilization of Arctic resources by making the best use of their advantages in capital, technology and domestic market. China maintains that all activities to explore and utilize the Arctic should abide by treaties such as the UNCLOS and the Spitsbergen Treaty as well as general international law, respect the laws of the Arctic States, and proceed in a sustainable way on the condition of properly protecting the eco-environment of the Arctic and respecting the interests and concerns of the indigenous peoples in the region.

3.1 Participating in the development of Arctic shipping routes

The Arctic shipping routes comprise the Northeast Passage, the Northwest Passage, and the Central Passage. As a result of global warming, the Arctic shipping routes are likely to become important transport routes for international trade. China respects the legislative, enforcement and adjudicatory powers of the Arctic States in the waters subject to their jurisdiction. China maintains that the management of the Arctic shipping routes should be conducted in accordance with treaties including the UNCLOS and general international law and that the freedom of navigation enjoyed by all countries in accordance with the law and their rights to use the Arctic shipping routes should be ensured. China maintains that disputes over the Arctic shipping routes should be properly settled in accordance with international law.

China hopes to work with all parties to build a "Polar Silk Road" through developing

the Arctic shipping routes. It encourages its enterprises to participate in the infrastructure construction for these routes and conduct commercial trial voyages in accordance with the law to pave the way for their commercial and regularized operation. China attaches great importance to navigation security in the Arctic shipping routes. It has actively conducted studies on these routes and continuously strengthened hydrographic surveys with the aim of improving the navigation, security and logistical capacities in the Arctic. China abides by the International Code for Ships Operating in Polar Waters (Polar Code), and supports the International Maritime Organization in playing an active role in formulating navigational rules for the Arctic. China calls for stronger international cooperation on infrastructure construction and operation of the Arctic routes.

3.2 Participating in the exploration for and exploitation of oil, gas, mineral and other non-living resources

China respects the sovereign rights of Arctic States over oil, gas and mineral resources in the areas subject to their jurisdiction in accordance with international law, and respects the interests and concerns of residents in the region. It requires its enterprises to observe the laws of the relevant States and conduct risk assessments for resource exploration, and encourages them to participate in the exploitation of oil, gas and mineral resources in the Arctic, through cooperation in various forms and on the condition of properly protecting the eco-environment of the Arctic.

The Arctic region boasts an abundance of geothermal, wind, and other clean energy resources. China will work with the Arctic States to strengthen clean energy cooperation, increase exchanges in respect of technology, personnel and experience in this field, explore the supply of clean energy and energy substitution, and pursue low-carbon development.

3.3 Participating in conservation and utilization of fisheries and other living resources

As fish stocks have shown a tendency to move northwards due to climate change and other factors, the Arctic has the potential to become a new fishing ground in the future. As regards fishing in the high seas in the Arctic Ocean, China has consistently held a firm stance in favor of conservation in a scientific manner and of rational use, and maintains that, while enjoying their lawful right to conduct fisheries research and development in the high seas in the Arctic Ocean, all States should fulfill their obligations to conserve the fishery resources and the ecosystem in the region.

China supports efforts to formulate a legally binding international agreement on the management of fisheries in the high seas portion of the Arctic Ocean. China also supports the establishment of an Arctic fisheries management organization or making other institutional arrangements based on the UNCLOS. China will strengthen survey on and research into the fishery resources in the high seas in the Arctic, carry out appropriate exploratory fishing, and play a constructive part in the management of fisheries in the high seas in the Arctic Ocean. China hopes to strengthen cooperation with the Arctic coastal States on the research, conservation, and utilization of fishery resources. China is committed to properly protecting Arctic biodiversity and advocates transparent and reasonable exploration and utilization of Arctic genetic resources, and fair and equitable sharing and use of the benefits generated by the exploitation of such resources.

3.4 Participating in developing tourism resources

Arctic tourism is an emerging industry, and China is a source of tourists to the Arctic. China supports and encourages its enterprises to cooperate with Arctic States in developing tourism in the region, and calls for continuous efforts to enhance security, insurance, and rescue systems to ensure the safety of tourists in the Arctic. China conducts training for and regulates Chinese tourism agencies and professionals involved in Arctic tourism,

and endeavors to raise the environmental awareness of Chinese tourists. China advocates low-carbon tourism, ecotourism, and responsible tourism, and hopes to contribute to the sustainable development of Arctic tourism.

China takes part in the development and utilization of Arctic resources on the condition of respecting the traditions and cultures of the Arctic residents including the indigenous peoples, preserving their unique lifestyles and values, and respecting the efforts made by the Arctic States to empower the local citizens, foster their social and economic progress, and improve education and medical services, so that the Arctic residents, including the indigenous peoples, will truly benefit from the development of Arctic resources.

4. Participating actively in Arctic governance and international cooperation

China is committed to improving and complementing the Arctic governance regime. China has worked to regulate and supervise the activities of Chinese citizens, legal persons or other organizations in the Arctic in accordance with the law to ensure that their activities accord with international law and respect the relevant national laws on environmental protection, resource conservation, and sustainable development. And it has endeavored to strengthen overall coordination of its Arctic policy and related affairs. Furthermore, China takes an active part in the international governance of the Arctic. China upholds the current Arctic governance system with the UN Charter and the UNCLOS as its core, plays a constructive part in the formulation, interpretation, application and development of international rules regarding the Arctic, and safeguards the common interests of all nations and the international community.

China stands for steadily advancing international cooperation on the Arctic. It has worked to strengthen such cooperation under the Belt and Road Initiative according to the principle of extensive consultation, joint contribution and shared benefits and emphasized policy coordination, infrastructure connectivity, unimpeded trade, financial integra-

tion, and closer people-to-people ties. Concrete cooperation steps include coordinating development strategies with the Arctic States, encouraging joint efforts to build a blue economic passage linking China and Europe via the Arctic Ocean, enhancing Arctic digital connectivity, and building a global infrastructure network. China hopes to work for the common good of all parties and further common interests through the Arctic.

At the global level, China actively participates in the formulation of rules concerning the global environment, climate change, international maritime issues, and high seas fisheries management, and fulfills all its international obligations in accordance with the law. China expands cooperation with various States and international organizations in environmental protection, and promotes energy conservation, emissions reduction, and low-carbon development. China also promotes global cooperation in tackling climate change, and upholds the principles of equity, common but differentiated responsibilities, and respective capabilities. It urges developed countries to fulfill their commitments under the UN Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement, and provides support to fellow developing countries in addressing climate change. China plays a constructive role in the work of the International Maritime Organization, and makes solid efforts to fulfill its international responsibilities for ensuring maritime navigational security and preventing its ships from polluting the maritime environment. China advocates stronger international cooperation in maritime technology and a globally coordinated solution to reducing greenhouse gas emissions from maritime transport under the International Maritime Organization framework. China takes an active part in negotiations over high seas fisheries regulation in the Arctic, and calls for a legally binding international agreement for managing fishery resources in the high seas portion of the Arctic. The agreement should allow scientific research and exploratory fishing activities in the high seas portion of the Arctic, and protect the freedom of all States on the high seas in accordance with international law.

At the regional level, China takes an active part in Arctic inter-governmental mech-

anisms. China, as an accredited observer to the Arctic Council, highly values the Council's positive role in Arctic affairs, and recognizes it as the main inter-governmental forum on issues regarding the environment and sustainable development of the Arctic. China stands by the commitments it made when applying to become an observer to the Council. It fully supports the work of the Council, and dispatches experts to participate in the work of the Council including its Working Groups and Task Forces. China respects the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, and the Agreement on Enhancing International Arctic Scientific Cooperation, all adopted by the Arctic Council. China also supports international cooperation through such platforms as the Arctic Science Ministerial Meeting.

At the bilateral and multilateral levels, China promotes practical cooperation in all fields, especially regarding climate change, scientific expeditions, environmental protection, ecosystems, shipping routes, resource development, submarine fiber-optic cables, cultural exchanges, and capacity building. China proposes to form cooperative partnerships between Arctic and non-Arctic States, and has carried out bilateral consultations on Arctic affairs with all Arctic States. In 2010, China and the United States set up an annual dialogue mechanism for bilateral dialogues on the law of the sea and polar issues. Since 2013, China and Russia have been conducting dialogues on Arctic issues. In 2012, China and Iceland signed the Framework Agreement on Arctic Cooperation, which was the first inter-governmental agreement on Arctic issues between China and an Arctic State. China also values cooperation with other non-Arctic States. It has conducted bilateral dialogues on the law of the sea and polar issues with the United Kingdom and France. In 2016, China, Japan and the Republic of Korea launched high-level trilateral dialogues on Arctic issues to promote exchanges on policies, practices, and experience regarding Arctic international cooperation, scientific research, and commercial cooperation.

China supports the participation of all Arctic stakeholders in Arctic governance and

international cooperation. China supports platforms such as “The Arctic: Territory of Dialogue”, “The Arctic Circle”, “Arctic Frontiers”, and “The China-Nordic Arctic Research Center” in promoting exchanges and cooperation among the stakeholders. China also supports the participation of research institutions and enterprises in Arctic governance with their own expertise put to good use. China encourages research institutions to communicate with foreign think tanks and academic institutions, and supports enterprises to participate in the commercial development and utilization of the Arctic in a lawful and orderly manner.

5. Promoting peace and stability in the Arctic

Peace and stability in the Arctic provide a significant guarantee for all activities in the region, and serves the fundamental interests of all countries including China. China calls for the peaceful utilization of the Arctic and commits itself to maintaining peace and stability, protecting lives and property, and ensuring the security of maritime trade, operations and transport in the region. China supports the peaceful settlement of disputes over territory and maritime rights and interests by all parties concerned in accordance with such treaties as the UN Charter and the UNCLOS and general international law, and supports efforts to safeguard security and stability in the region. China strives to reinforce cooperation with the Arctic States in maritime and air search and rescue, maritime early warning, emergency response, and information sharing in order to properly handle security challenges such as maritime accidents, environmental pollution, and maritime crimes.

03

China-Russia Cooperation in Arctic Governance: Practices and Progresses

In accordance with the principles, goals and positions set out in its Arctic policy, China has carried out practical cooperation with both Arctic and non-Arctic countries, with Russia as a key partner. Such cooperation has yielded fruitful outcomes and valuable experience in areas including the rational development and utilization of the Arctic, protection of the Arctic ecosystem, and safeguarding of peace in the region. These efforts have provided exemplary references for countries around the world in participating in Arctic governance and advancing cooperation in Arctic affairs.

(I) Energy development in the Arctic

The Arctic is endowed with abundant oil and gas resources, with proven oil and natural gas reserves accounting for 13 percent and 30 percent of the world's total undeveloped stock respectively, making it one of the key frontiers for global energy development. China and Russia have established an efficient and robust strategic partnership in the energy sector. Representative projects such as the Yamal LNG and the Arctic LNG 2 have given full play to the complementary advantages of the two sides. These projects have not only accelerated the modernization and upgrading of energy infrastructure in the Arctic, but also

injected new impetus to the diversification of global energy supply.

The Yamal LNG project stands as a landmark achievement of China-Russia energy cooperation, fully demonstrating the close coordination between the two sides in terms of capital, technology, and operations. Located on the Yamal Peninsula in northwestern Siberia, the project relies on the region's abundant natural gas reserves to produce liquefied natural gas (LNG) and supply it to global markets. As of 2024, the annual shipping volume of the Yamal LNG project had reached approximately 19.6 million tons, serving as an important contributor to global energy supply. China National Petroleum Corporation (CNPC) holds a 20 percent stake in the project, while the Silk Road Fund holds an additional 9.9 percent, bringing China's total share to nearly 30 percent. These investments reflect China's efforts to ensure long-term energy supply and promote the diversification of the energy structure. The investments and technological cooperation have also delivered win-win outcomes for all parties involved.

The Arctic LNG 2 project represents the next major focus of China-Russia energy cooperation. Located on the Gydan Peninsula, the project is planned to comprise three liquefaction production lines, with a target annual capacity of 19.8 million tons. CNPC and China National Offshore Oil Corporation (CNOOC) together hold approximately a 20 percent stake in the project. The project has achieved a number of technological breakthroughs, with the gravity-based structure (GBS) liquefaction platform being the most representative, which significantly reduces the environmental impact on the fragile Arctic ecosystem while markedly improving operational efficiency. The project has continued to advance steadily, demonstrating the resilience and adaptability of China-Russia energy cooperation.

During the implementation of these projects, the "Arctic Cascade" medium-scale liquefaction technology has been continuously applied and improved. It has steadily enhanced Russia's LNG production capacity and provided new technological support for the sustainable energy exploration and development in the Arctic.

(II) Shipping route infrastructure

1. Developing Northern Sea Route

The melting of Arctic sea ice, resulting from global warming, has facilitated the opening of the Northern Sea Route (NSR), providing a direct maritime passage between Asia and Europe. Compared with traditional shipping routes such as those passing through the Suez Canal, NSR can shorten voyage time by about 22 days and reduce carbon emissions by approximately 30 percent, greatly shortening transportation time while reducing costs for global trade. China attaches great importance to the NSR, regarding it as an important component of the “Polar Silk Road”. The white paper China’s Arctic Policy states that “China hopes to work with all parties to build a ‘Polar Silk Road’ through developing the Arctic shipping routes”. China’s 14th Five-Year Plan also proposed that China will participate in practical cooperation in the Arctic and promote the development of the “Polar Silk Road”.

Russia also regards the NSR as a core national asset, and has steadily advanced its development through substantial government-led investment and continuous improvement of the regulatory framework. The Russian government has introduced numerous policies to strengthen infrastructure along the route and improve relevant laws and regulations, so as to better support the international community in developing and utilizing the NSR.

China and Russia have taken a series of measures to enhance cooperation in the development and utilization of the NSR, including improving navigation safety, strengthening infrastructure and building logistics networks. According to China COSCO Shipping Corporation, the company has achieved regular commercial navigation along the route, which proves the route’s growing feasibility and economic potential. In 2024, cargo throughput along the NSR reached 37.9 million tons, a new historical record even though falling short of Russia’s target of 80 million tons. In recent years, while cargo volume along the route has continued to increase, changes in the geopolitical landscape have considerably altered the

structure of freight flows, with transit cargo volume experiencing a marked decline.

2. Joint infrastructure development

Ports and icebreakers constitute key infrastructure for the smooth operation of the NSR. Russia possesses the world's largest fleet of nuclear-powered icebreakers. However, to meet the growing shipping demand, new ports and supporting infrastructure need to be built along the route. China boasts strong technical expertise and capabilities in large-scale infrastructure construction. In recent years, China and Russia have made notable progress in infrastructure cooperation, particularly in the fields of energy, transportation and regional development. Representative projects include the Port of Sabetta, the Power of Siberia natural gas pipeline, and the first China-Russia railway bridge across the Amur River. These projects have ensured the steady advancement of bilateral energy cooperation, and promoted deeper economic integration between the two countries. They stand as strong testimony to the two sides honoring their commitment to enhancing regional connectivity.

(III) Manufacturing of specialized vessels

Shipping operations in the Arctic require specialized vessels capable of navigating ice-covered waters, withstanding extremely low temperatures, and complying with stringent environmental regulations. Such vessels must be equipped with reinforced hulls and advanced icebreaking devices, and must comply with the Polar Code formulated by the International Maritime Organization to ensure navigation safety and environmental protection in polar waters. The demand for such vessels has driven major advances in Arctic shipbuilding technologies, continuously expanding the scope of innovation and cooperation in this field. In recent years, China and Russia have continued to deepen cooperation in

shipbuilding, strategically combining China's advanced shipbuilding capacity with Russia's extensive expertise in Arctic navigation, thereby helping enhance the operational capabilities in Arctic waters.

China possesses a large shipbuilding capacity and technological innovation capabilities, while Russia has rich experience in vessel design and operation. The two countries have carried out cooperation in shipbuilding based on these complementary strengths. For example, the Christophe de Margerie-class vessel, built in China with reinforced hulls and cutting-edge propulsion systems, has served as a key transport asset for Russia's Yamal LNG project. The strategic cooperation between Chinese and Russian shipbuilding industries is aimed at integrating advanced technologies and enhancing production efficiency, thereby promoting the modernization of their shipbuilding sectors and strengthening their operational capabilities in Arctic shipping. In recent years, China's state-owned enterprises such as China COSCO Shipping Corporation have continued to increase R&D investment, striving to improve the performance and efficiency of their Arctic vessels. Currently, joint ventures have been initiated with relevant Russian partners to produce next-generation ice-class tankers, supply vessels, and icebreakers. These projects focus on advancing Arctic maritime technologies, and are crucial for meeting the growing demands for resource exploitation and trade/shipping routes in the Arctic.

(IV) Scientific expedition

Based on the considerations of both countries, China and Russia have continued to deepen cooperation in Arctic scientific research, aiming to enhance the understanding of the polar region and to conduct in-depth studies on the rapid environmental changes in the Arctic and their global impacts.

1. Joint scientific expeditions and field studies

Joint Arctic expeditions represent a typical manifestation of bilateral cooperation. For example, Chinese researchers have joined the “Arctic Floating University” program organized by the Northern (Arctic) Federal University (NArFU) of Russia, focusing on Arctic biodiversity, oceanographic characteristics, and the impacts of climate change. In addition, the Polar Research Institute of China, in collaboration with the Russian Arctic and Antarctic Research Institute, conducted expeditions aboard the Russian research vessel Akademik Tryoshnikov, with a focus on ice-sheet dynamics, marine ecosystems, and carbon cycling. These expeditions have collected valuable data on Arctic physical and biological systems, providing support for global climate modeling and references for policy-making. For instance, joint studies on permafrost thawing have revealed patterns of greenhouse gas release, which is of great importance for deepening the study of global warming.

2. Arctic observation network and data sharing

China and Russia have also worked together to advance the establishment of an Arctic observation network, which is crucial for monitoring environmental changes and forecasting future trends. The two countries have jointly deployed satellite ground stations in northern Russia, including Arkhangelsk and Murmansk, enhancing capabilities to monitor the scope of sea ice, weather patterns, and ocean currents. These ground stations complement existing observational infrastructure, forming a more comprehensive and integrated monitoring system. Data sharing is a core pillar of this cooperation. China and Russia have established a joint database that consolidates research findings in areas such as Arctic hydrology, atmospheric chemistry, and glacier dynamics. This shared database enables more precise climate modeling and risk assessment, benefiting both countries as well as the international scientific community.

3. Climate change response and sustainable development

Addressing climate change is an important theme of China-Russia cooperation in Arctic scientific research. The Arctic serves as a “barometer” of global climate change and is among the regions most affected by rising temperatures. The two countries have focused on studying the driving factors and consequences of Arctic warming, including its impacts on sea level rise, weather patterns, and biodiversity. Chinese and Russian scientists have conducted pioneering research on the Arctic’s role in the global carbon cycle, with particular attention to methane emissions from permafrost thawing and subsea methane hydrates, which could accelerate global warming through feedback loops. In addition, the two sides have explored sustainable development pathways for the Arctic, seeking a balance between economic opportunities and environmental protection. Efforts include the development of renewable energy (such as wind and solar power) technologies adapted to the region’s harsh conditions.

4. Technological innovation and research facilities

Technological cooperation constitutes another important aspect of China-Russia Arctic scientific research. Chinese enterprises have provided advanced equipment such as autonomous underwater vehicles and remote sensing technologies, offering strong technical support for joint research. These tools have enabled more accurate data collection and analysis, contributing to higher-quality research outcomes. The development of research facilities is another key area of cooperation. Both countries have invested in laboratories, meteorological stations and other research infrastructure in the Arctic, providing guarantees for long-term scientific work. These facilities serve as hubs for joint research and talent cultivation, boosting innovation and capacity building.

(V) Challenges

While the above-mentioned cooperation has made substantial progress, challenges and difficulties remain. To address them, China and Russia must intensify their collaboration and dialogue, and work with more partners to promote mutual understanding and maintain open communication channels, so as to advance more sustainable Arctic governance and cooperation.

1. Energy development

The Arctic LNG 2 project faces multiple challenges, including harsh natural conditions, high production costs and increasingly intensified international sanctions, which require innovative solutions. Western sanctions have had a significant impact on the project. Restrictions on shipbuilding and procurement, in particular, have led to delays in the delivery of key icebreaking LNG carriers. These uncertainties have affected the project's long-term feasibility. Sanctions have also limited the access to financing channels and advanced technologies, hindering equipment acquisition and the availability of financial support.

In response to these challenges, Russia has sought new suppliers and accelerated the localization of key technologies. At the same time, China has provided critical support through equity investment, equipment supply and technological cooperation, enhancing the project's risk resilience. China's accumulated expertise in infrastructure and its emphasis on renewable energy applications are expected to further contribute to the project's sustainability. As geopolitical tensions escalate, the sustainability of China-Russia Arctic energy cooperation faces mounting uncertainties. Going forward, how to balance energy security, sanction-induced risks and sustainable development will be the core challenge for energy cooperation in the Arctic.

2. Infrastructure development

Infrastructure cooperation is also challenged by natural conditions, financial sustainability, policy priorities, and social impacts.

First, extreme weather, unpredictable floating ice and remote geography make infrastructure construction and maintenance extremely difficult in the Arctic. The harsh environment requires specialized equipment and advanced technologies, which are not always readily available. Large-scale infrastructure projects may affect the fragile Arctic ecosystem, leading to environmental concerns that further complicate project implementation.

Second, infrastructure construction in the remote and harsh environment of the Arctic involves substantial financial pressure and requires significant amounts of resources. It is extremely costly to build ports, icebreakers and pipelines in the Arctic, whereas investment returns are uncertain. Polar logistics and transportation require careful long-term planning, and corresponding infrastructure must be capable of accommodating seasonal fluctuations in shipping.

Third, China and Russia have different priorities and strategic objectives. Both countries aim for closer economic ties, but China places greater emphasis on securing energy supply and enhancing trade route efficiency, while Russia focuses on modernizing infrastructure, generating revenue through energy exports and enhancing its strategic influence in the Arctic.

Finally, infrastructure construction in the Arctic and Siberian regions is closely linked with local communities, including the indigenous peoples, whose rights and needs must be acknowledged and accommodated. Coordinating these relationships and mitigating the social and cultural impacts of infrastructure development require careful consideration and prudent management.

3. Manufacturing of specialized vessels

Although China and Russia enjoy great potential in shipbuilding cooperation, challenges remain.

First, geopolitical tensions, particularly pressure from Western countries, may impose constraints at the diplomatic and economic levels.

Second, the two countries' shipbuilding technologies and infrastructure need further integration, but their differences in technical systems and production processes necessitate substantial investment and adaptive adjustments, especially in the modernization of existing facilities and the construction of new ones.

Third, the manufacturing of vessels capable of operating in the Arctic must comply with stringent environmental standards and international regulations. The Arctic ecosystem is among the most fragile in the world, and all maritime projects must be fully evaluated in their potential environmental impacts. At the same time, both countries are required to abide by the International Code for Ships Operating in Polar Waters, which sets high standards for the design and operation of polar vessels, demanding careful planning and international cooperation.

Finally, illegal international sanctions have hindered access to critical shipbuilding materials, technologies and components from Western markets, potentially causing project delays and rising costs.

04

Cooperation in Arctic Governance: Communicating Its Value to the World

Regarding the current China-Russia Arctic cooperation, both countries have made a point of explaining what they do, but not why they do it. This makes it difficult for the international community to accurately understand the true value and significance of such cooperation, and leaves room for Western interpretations—or misinterpretations. In fact, the China-Russia Arctic cooperation represents a form of regional collaboration with distinct public nature—an intrinsic feature that explains why such cooperation has extended beyond the bilateral framework and gained international recognition, distinguishing it from the zero-sum approach often observed in the West. To convey the value of Arctic governance cooperation to the world, emphasis should be placed on its public, inclusive and forward-looking nature, allowing the international community to tangibly perceive the shared benefits brought about by the cooperation and consequently fostering broader understanding and recognition.

First, highlighting the value of climate governance and addressing global ecological concerns. Ecological changes in the Arctic directly affect the global climate system, making the region a “sentinel” in global climate governance. The white paper China’s Arctic Policy clearly identifies addressing climate change as a priority for China’s participation in Arctic affairs. China-Russia cooperation in Arctic climate research constitutes an important part of global climate governance. For example, China and Russia have jointly established

an Arctic research center and conducted multidisciplinary scientific expeditions and research covering glaciers, oceans and the atmosphere, improving the Arctic climate monitoring data system and providing critical scientific support for global climate governance. They have also deepened joint protection of Arctic biodiversity and promoted coordinated development and conservation, offering valuable references for global ecological conservation. In communicating these initiatives to the international community, both countries should emphasize the tangible outcomes of their cooperation and explain the important role of China-Russia collaboration in global climate governance. They must demonstrate that China-Russia Arctic cooperation is a practical implementation of the principles of extensive consultation, joint contribution and shared benefits within the global climate governance system, and represents a constructive force in addressing global climate change.

Second, highlighting the value of global supply chains and addressing global development concerns. As the shortest maritime routes connecting North America, East Asia and Western Europe, Arctic shipping routes play an important role in enhancing supply chain resilience and diversifying supply chain risks. Practical cooperation between China and Russia in Arctic shipping routes has achieved notable results. For example, the Yong Sheng vessel operated by China COSCO Shipping Corporation was the first Chinese cargo ship to navigate the Northeast Passage, and the first shipment of LNG supplied to China from the Yamal project was transported via the Northeast Passage, greatly reducing the shipping time and logistics costs. In communicating these projects, it is important to place them within the context of global supply chain security and highlight their advantages in diversification and low-cost, showcasing their contributions to alleviating supply chain tension and promoting trade facilitation.

Third, highlighting the value of regional development and addressing Arctic livelihood concerns. Arctic residents, including the indigenous peoples, are key stakeholders in the region, and sustainable development of the Arctic is an important objective of Arctic governance. The white paper China's Arctic Policy emphasizes "respect the

tradition and culture of the indigenous peoples” and “accommodate the interests of local residents including the indigenous peoples”. China-Russia Arctic cooperation has consistently adhered to a people-centered development philosophy, prioritizing the promotion of economic development and the improvement of local livelihoods, with the cooperation outcomes directly benefiting local communities. In communicating these concepts of cooperation to the international community, emphasis should be placed on conveying the people-centered approach and presenting concrete examples to demonstrate how China-Russia cooperation has markedly improved livelihoods in the Arctic, so as to strengthen the emotional bond with Arctic populations.

Fourth, clarifying future direction and highlighting open and inclusive cooperation. China and Russia need to clearly communicate to the world the future direction of their cooperation—openness, inclusiveness, and mutual benefit—emphasizing that cooperation is not exclusive, but a process that leaves space for broader international participation. They need to convey three key messages to the international community: first, they respect multilateral mechanisms such as the Arctic Council and actively participate in multilateral cooperation; second, they support scientific research collaboration and information sharing, and are willing to share the results and experience with the international community; third, they welcome third-party participation in specific projects, such as aligning with Finland’s “Arctic Corridor” initiative, to share the benefits of Arctic development. Such efforts can help demonstrate China and Russia’s international identity as responsible major countries and constructive participants while responding to external questions about the exclusivity of China-Russia cooperation.

05

Conclusion

Arctic governance is an important part of global governance, and its development bears heavily on global climate security, energy landscape and geopolitical stability. This report systematically reviews the goals, principles and positions of China's Arctic policy, comprehensively summarizes China's practical achievements in its participation in Arctic governance, and provides an in-depth analysis of the opportunities and challenges facing Arctic governance as well as the pathways of its international communication. The report reaches the following core conclusion: only by upholding multilateralism, the concept of win-win cooperation and the principle of sustainable development, can we successfully address the dilemma in Arctic governance and consequently achieve lasting peace and prosperity in the Arctic region.

Adhering to its policy goals of understanding, protecting, developing and participating in the governance of the Arctic and the basic principles of "respect, cooperation, win-win result and sustainability", China has carried out a series of practical cooperative initiatives in areas such as energy development, shipping route infrastructure, shipbuilding and scientific expedition. Energy projects jointly advanced by China and Russia, such as the Yamal LNG and the Arctic LNG 2, have not only leveraged the complementary strengths of both countries but also stabilized the global energy supply chain. The regular operation of the NSR and the joint infrastructure development have laid a solid foundation for building

the “Polar Silk Road”. Joint scientific expeditions and the establishment of the observation network have provided important scientific support for global climate governance. These practices fully demonstrate that China’s participation in Arctic affairs is constructive and responsible, injecting new momentum into Arctic governance.

At the same time, the report soberly recognizes the multiple challenges facing Arctic governance. Intensifying geopolitical tension has prompted some countries to form blocs or engage in confrontation in the Arctic, Western sanctions have introduced uncertainties to Arctic cooperative projects, and the extreme natural environment makes it ever harder to balance utilization and conservation. Addressing these challenges requires both Arctic and non-Arctic States to settle disputes through dialogue and consultation, as well as enhanced international consensus on and recognition of the value of Arctic cooperation.

Looking ahead, Arctic governance should develop toward more open, inclusive and just. To achieve this, concerted efforts by all parties are required: First, we must uphold the framework of international law and safeguard the Arctic governance system centered on the UN Charter and UNCLOS, resolving territorial and maritime disputes through peaceful means. Second, we must deepen practical cooperation, focusing on global issues such as climate governance, shipping route utilization and ecological conservation, so as to expand Arctic cooperation from bilateral to multilateral levels and from single-domain initiatives to multidimensional coordination. Third, we must establish an effective international communication system to counter the biased narratives from the West, tell the stories of win-win Arctic cooperation well, and highlight the value of Arctic governance for public wellbeing and for the common interests of humanity. Fourth, we must commit to a sustainable development approach, balance resource utilization and ecological conservation, and respect the traditions and interests of Arctic indigenous peoples, thereby ensuring intergenerational equity for present and future generations.

The Arctic is a common asset of all humanity, and its peace, stability and sustainability bear on the future of every individual. China will continue to implement the Global

Governance Initiative and work with all countries to replace confrontation with dialogue and address challenges through cooperation, making greater contributions to the establishment of a more just and reasonable Arctic governance framework and the building of a community with a shared future for humanity. As former President of Iceland Ólafur Grímsson stated, “The Arctic belongs to all of us”. Only through joint efforts and a shared vision, can it be possible to safeguard the purity and tranquility of this icy territory, ensuring that the Arctic remains a bridge for international cooperation rather than a wall of division.



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