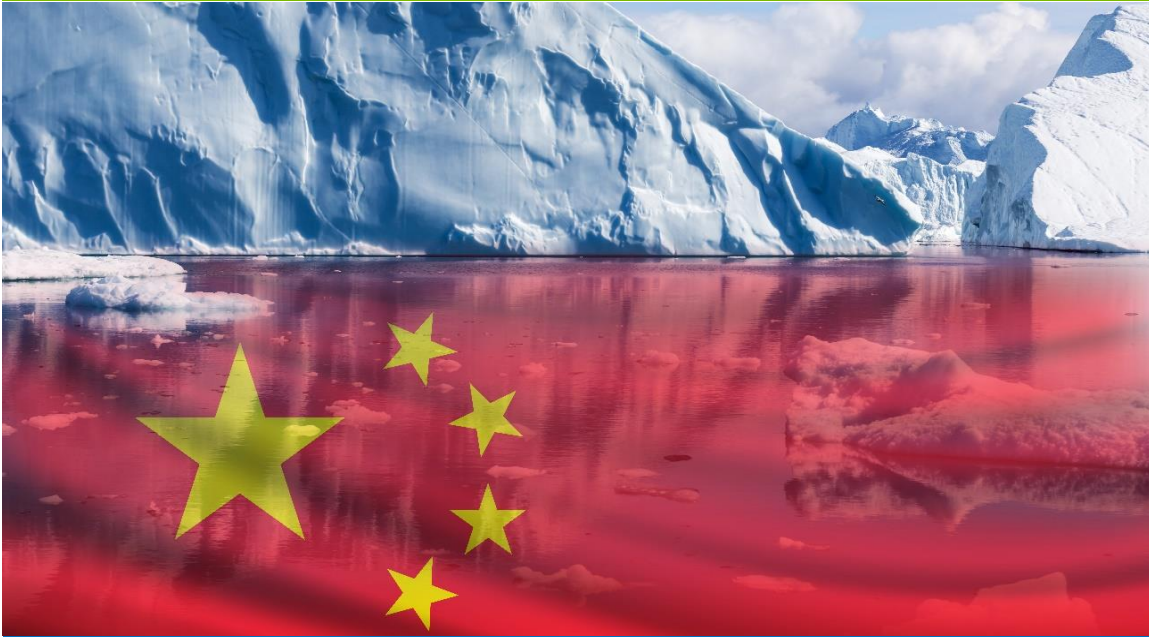




Exploring the Relationship between China's Investment in the Arctic and Its National Strategy

Heidi Holz, Andrew Taffer, Anthony Miller, and Benjamin DeThomas

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Abstract

This report is part of a series of reports that CNA produced at the request of the Office of the Secretary of Defense to fulfill requirements outlined in the FY 2020 National Defense Authorization Act (NDAA, Sec. 1260E). The FY 2020 NDAA mandates that a federally funded research and development center “complete an independent study of Chinese foreign direct investment [FDI] in countries of the Arctic region, with a focus on the effects of such foreign direct investment on United States national security and near-peer competition in the Arctic region.” This report examines the relationship between the People’s Republic of China’s (PRC’s) foreign direct investment (FDI) in the Arctic and its strategic national objectives. It also identifies potential implications of China’s Arctic investments for the United States and its allies and partners.

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January 2022

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Executive Summary

This report is part of a series that CNA produced to fulfill requirements outlined in the fiscal year (FY) 2020 National Defense Authorization Act (NDAA), Sec. 1260E. The FY 2020 NDAA mandates that a federally funded research and development center “complete an independent study of Chinese foreign direct investment [FDI] in countries of the Arctic region, with a focus on the effects of such foreign direct investment on United States national security and near-peer competition in the Arctic region.” The Department of Defense selected CNA to conduct this analysis, for which CNA produced four reports. In this report, we examine the relationship between FDI in the Arctic by entities based in the People’s Republic of China (PRC) and the PRC’s strategic national objectives. We also identify potential implications of the PRC’s Arctic investments for the United States and its allies and partners.¹

Key findings

PRC leaders see the Arctic as important to achieving the PRC’s overarching strategic objectives, including the following:

- **Sustaining economic development.** Authoritative PRC writings describe the Arctic’s abundant energy and mineral resources as important to China’s economic development. They also note that Arctic shipping routes would drastically reduce the time and distance—and therefore shipping costs—of transporting goods between Northeast Asia and Europe and North America.
- **Defending national sovereignty, security, and development interests.** People’s Liberation Army (PLA) strategic thinkers have noted several reasons that the Arctic is important to China’s security objectives, including the deterrent value of deploying nuclear missiles to the Arctic and the fact that Arctic shipping routes offer potential alternatives to the Suez Canal, Panama Canal, and the Strait of Malacca, all of which are potential chokepoints.
- **Reforming the global system to align with PRC interests.** PRC leaders seek to restructure the international system in ways that suit China’s interests and afford it great power status. PRC policy statements describe the Arctic as part of the “community with a shared future for mankind”—a community in which Beijing hopes to play a leadership role.

China’s coordinated efforts to advance its interests in the Arctic employ multiple elements of state power.

- To date, Beijing's efforts to pursue its policy objectives in the Arctic have relied on the diplomatic, economic, and informational elements of state power.

Although China's military is not currently active in the Arctic, the PLA is developing the capabilities and concepts that would allow it to operate there in the near future.

- To date, the PLA Navy has publicly operated near the Arctic on only a few occasions. However, the PRC is building capacity, prepositioning capabilities, and developing familiarity with the operating environment that could enable future PLA operations in the region.
- PLA strategic thinkers are already considering how to operate in the Arctic. They emphasize the importance of integrating military and civilian forces. PLA-affiliated authors suggest using the PLA to support polar scientific observation and conduct rescue operations in the polar regions.

Economic tools play a unique role in Beijing's efforts to advance its interests in the Arctic.

- As a non-Arctic state, China depends on the states in the region for access to pursue its interests there and uses economic incentives to secure that access.
- PRC-based firms with deep pockets and state backing are uniquely positioned to take on large, risky Arctic projects. Indeed, the financial power of China's firms—particularly its state-owned enterprises—is a relative advantage over other states with interests in Arctic investment.

FDI appears to be an important targeted tool that PRC-based entities use to secure rights to the Arctic's natural resources and develop the infrastructure to support Arctic shipping routes.

- Of the 39 projects that we examined, at least 22 involved FDI.
- Of note, PRC-based firms' efforts to establish a foothold in the Arctic appear to have had mixed results. At least 13 projects were blocked or encountered some sort of difficulty.

The party-state exerts control over both state-owned and private PRC-based companies to ensure that their investments in Arctic countries further Beijing's interests.

- In recent years, the party-state has issued guidance and regulations aimed at tightening control over the overseas investments of PRC-based firms to ensure that their activities align with Beijing's interests.
- Because of the PRC government's investment screening regulations, PRC-based firms are likely to focus on projects related to the extraction of natural resources and the

development of the infrastructure necessary to make Arctic shipping routes commercially viable.

- Conversely, PRC-based companies are unlikely to make international investments in sectors on which Beijing has placed restrictions, such as real estate, hotels, entertainment, or sports. The same regulations also forbid PRC-based companies from pursuing investments that do not meet the target country's environmental, energy efficiency, or safety standards.

Despite China's wide-ranging efforts to achieve its objectives in the Arctic, its success to date has been limited by a variety of constraints, including the following:

- **Pushback from Arctic states over security concerns and domestic political considerations.** Several Arctic states—including Finland, Denmark, and Canada—have blocked PRC investment in the Arctic because of security concerns. There has been pushback against the PRC's ground satellite station in Kiruna, Sweden, because of its potential military applications. PRC efforts to cooperate with Russia on the development of a "Polar Silk Road" have met with domestic political opposition from Russian officials who chafe at the idea of subordinating the Northern Sea Route to a PRC initiative.
- **Beijing's counterproductive use of economic coercion.** Beijing's efforts to promote a positive image of China's role in the Arctic have been severely undermined by its use of economic coercion against Norway, Sweden, and Canada and by PRC diplomats' threats against countries that refuse to accept Huawei's presence.
- **Need for profitability.** Despite Beijing's significant influence over their operations, PRC-based firms are still commercial enterprises looking to turn a profit, and some have voiced concerns about the profitability of Arctic ventures.
- **Stalled projects and continued lack of port access.** A number of PRC investment projects in the Arctic appear to have stalled or failed to progress beyond the signing of agreements. Key among these projects are the PRC's efforts to develop a port in Arkhangelsk. Despite its efforts, Beijing continues to lack access to Arctic ports.

Implications

Expect China to continue to use multiple elements of state power to advance its interests in the Arctic. Beijing has made it clear in recent years that it sees the Arctic as critical to achieving its overarching strategic objectives of "national rejuvenation," "building a strong China," and revising the international order to align more closely with PRC interests. The US

and its partners and allies can therefore expect to see enduring PRC efforts to expand China's economic, diplomatic, and scientific presence in the region.

Keep an eye out for PLA participation in PRC-based scientific expeditions and search-and-rescue activities in the Arctic. Although the PLA does not actively operate in the Arctic, China is building capacity, prepositioning capabilities, and developing familiarity with the operating environment that would enable future PLA operations in the region. PLA strategic thinkers are already considering how to operate in the Arctic. The US and its partners and allies should therefore keep an eye out for PLA participation in PRC scientific missions and search-and-rescue operations as indicators that the PLA is transitioning to a more active role in China's Arctic activities.

Expect both state-owned and private PRC companies' investments in Arctic countries to further Beijing's interests. PRC-based firms are likely to focus on projects that secure access to natural resources and develop the infrastructure necessary to make Arctic shipping routes commercially viable. Because of recent party-state regulations on the overseas investment activities of PRC-based firms, we are unlikely to see PRC investment in sectors such as real estate, hotels, entertainment, or sports.

FDI appears to be an important targeted tool that PRC-based entities use to secure rights to the Arctic's natural resources and develop the infrastructure to support Arctic shipping routes. PRC-based companies have also undertaken a number of contracts to construct various infrastructure projects in the region, helping Beijing to establish a physical presence there. PRC FDI and the activities of PRC construction firms in the Arctic warrant careful evaluation to determine whether they pose potential security risks to the US and its allies and partners in the region.

Projects financed by PRC-based entities are likely to continue to face pushback from Arctic states. Several Arctic states have blocked PRC-based projects because of security concerns and domestic political considerations that are unlikely to disappear anytime soon. Moreover, Beijing's use of economic coercion and "wolf warrior" diplomacy have undermined its efforts to improve its image in the eyes of Arctic countries. Thus, this pushback is likely to continue to constrain PRC efforts to gain a foothold in the Arctic. How Beijing seeks to address this challenge is an issue that warrants careful monitoring.

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1. Introduction

This report is part of a series that CNA produced at the request of the Office of the Secretary of Defense to fulfill requirements outlined in the fiscal year (FY) 2020 National Defense Authorization Act (NDAA), Sec. 1260E. The FY 2020 NDAA mandates that a federally funded research and development center “complete an independent study of Chinese foreign direct investment [FDI] in countries of the Arctic region, with a focus on the effects of such foreign direct investment on United States national security and near-peer competition in the Arctic region.”² To fulfill this requirement, CNA produced a series of reports addressing the following issues:³

- The nature and scope of current People’s Republic of China (PRC) FDI in the Arctic
- The legal conditions that govern FDI in the Arctic countries
- The relationship between China’s Arctic FDI and its strategic national objectives
- Recommendations for how the US can mitigate negative implications of PRC FDI in Arctic countries

This report examines the relationship between PRC FDI in the Arctic and the PRC’s strategic national objectives. In this report, we address the following questions:

- How does the Arctic fit in China’s national strategy, and what are the PRC’s strategic objectives in the Arctic?
- How does the PRC pursue its objectives in the region?
- What is the role of overseas investment in China’s efforts to achieve its goals in the Arctic? How does the PRC party-state influence PRC-based firms to ensure that their investments align with Beijing’s goals?
- What are the implications of PRC investments in the Arctic for the US and its allies and partners?

1.1 Methodology

This analysis is informed by primary- and secondary-source Chinese-language materials focused on PRC foreign and security policy; official PRC government statements about the Arctic, including PRC policy documents and public remarks by high-level PRC officials; and the writings of PRC government- and party-affiliated analysts. In addition to official and unofficial articulations of PRC interests in the region, we survey PRC activities in the Arctic across the

dimensions of statecraft, noting the principal ways in which the PRC advances its regional objectives and how these activities accord with its broader strategic goals. Paying particular attention to the economic dimension, we examine the mechanisms through which the PRC ensures that PRC-based firms' activities and investments are consistent with party-state objectives as well as the extent to which PRC-based firms are subject to market incentives. Lastly, we assess the degree of success PRC-based firms have had in using FDI, along with other commercial agreements, to advance PRC objectives in the Arctic.

2. How Does the Arctic Fit in China's National Strategy?

To situate China's activities in the Arctic within the broader context of the PRC party-state's grand strategy, this section examines the following topics:

- The PRC's overarching strategic objectives, as articulated by senior party-state leaders and official documents
- PRC perceptions of the value of the Arctic to achieving those overarching objectives
- Beijing's publicly declared objectives in the Arctic

2.1 China's strategic objectives

PRC leaders have a vision of China, its place in the world, and the international system to which it belongs. Public statements by senior PRC party-state officials and publicly released official documents use two main slogans to serve as shorthand for this vision:

- **"The China dream of national rejuvenation"** conveys PRC leaders' vision of a revitalized China that has returned to its former glory as a political, cultural, and economic power.
- **"Community with a shared future for mankind"** describes PRC leaders' ambition to restructure the international system to suit China's interests and great power status.

PRC leaders have articulated specific objectives for achieving these visions.

2.1.1 Domestic objectives: Achieving the "China Dream"

PRC leaders want to return China to its historical status as a global political, cultural, and economic power by achieving what they refer to as the "China Dream." Since 2012, PRC President and General Secretary of the Central Committee of the Chinese Communist Party (CCP) Xi Jinping has repeatedly called for a "national rejuvenation" that would undo the damage caused to China by imperialist powers during the "century of humiliation."⁴ Xi's vision is for the PRC to become "a global leader in terms of comprehensive national power and international influence" by the middle of the 21st century.⁵ Xi Jinping has outlined three key objectives for achieving this China Dream:⁶

- Perpetuating CCP rule⁷
- Sustaining economic growth and development⁸

- Defending national sovereignty, security, and development interests⁹

2.1.2 International objectives: Building a “community with a shared future for mankind”

PRC leaders also seek to restructure the international system in ways that suit Beijing’s interests and allow it a role commensurate with great power status. PRC leaders refer to this as “building a community with a shared future for mankind.”¹⁰ This concept has featured prominently in defense documents and major speeches to the international community since 2012.¹¹ According to PRC officials, building this “community” involves restructuring the international system and revising its underlying norms in the following ways:

- **Promoting an alternative to the US alliance structure.** PRC officials claim that the US alliance system creates “zero-sum mentalities” that undermine the security interests of nonmember countries such as the PRC.¹² Instead, PRC diplomats advocate for replacing the American-led alliance system—particularly its alliances in the Indo-Pacific region—with a system of “cooperative security.”¹³
- **Reforming the global governance system.** PRC diplomats seek to reform the global governance system and secure a greater leadership role for the PRC. PRC diplomats argue that current norms and institutions cannot address modern global challenges in polar regions, internet governance, the deep sea, and outer space.¹⁴
- **Providing public goods to protect PRC and global interests.** Xi Jinping has called for the PRC to become a “contributor of global development and keeper of international order” by providing public goods.¹⁵ PRC leaders claim that the Belt and Road Initiative (BRI), the Asian Infrastructure Investment Bank, and international peacekeeping efforts not only protect PRC interests abroad, but also assuage concerns about the PRC’s strength by “delivering benefits to all.”¹⁶

2.2 Where the Arctic fits

Beijing sees the Arctic as important to achieving its strategic objectives.¹⁷ Official PRC policy statements and authoritative PRC writings cite specific reasons that the polar regions are strategically important to China’s efforts to achieve sustained economic growth, national security, and a greater role in global governance. These are listed in Table 1.

Table 1. PRC perceptions of the value of the Arctic to achieving China's strategic objectives

PRC strategic objective	Importance of the Arctic
Sustaining economic growth and development	• The Arctic's abundant energy and mineral resources will become "an important element in world energy and resources security."¹⁸ • Arctic sea routes are shorter and can handle ships of any size and draft depth. Some are free of the fees and incidental costs associated with the use of the Panama and Suez Canals.¹⁹ • Arctic shipping routes offer potential alternatives to the Suez Canal, the Panama Canal, and the Strait of Malacca, all of which are potential chokepoints.²⁰ • The promise of Arctic resources drives PRC-based companies to develop cutting-edge technologies.²¹
Defending national sovereignty, security, and development interests	• People's Liberation Army (PLA) strategic thinkers have noted the deterrent value of deploying nuclear missiles to the Arctic.²² <i>Science of Military Strategy</i> describes the Arctic as a "global strategic commanding height" because ballistic missiles launched from the North Pole can cover the US, Europe, China, and Russia and are more likely to penetrate missile defense systems due to the shorter flight distance.²³ • PLA strategists describe the Arctic as an "ideal hiding place" for ballistic missile submarines because the hydrographic and electromagnetic environments reduce the effectiveness of current antisubmarine warfare capabilities.²⁴ According to one PLA academic, the thick Arctic ice "provides natural shelter for military weapons including strategic nuclear submarines."²⁵ • The extreme climate and complex electromagnetic environment make the polar regions a natural testing ground for military materials and equipment.²⁶
Reforming the global governance system and providing public goods	• PRC policy statements describe the Arctic as part of the "community with a shared future for mankind" in which Beijing hopes to play a greater role in international governance and provide public goods such as environmental protection.²⁷

Source: CNA.

2.3 China's objectives in the Arctic

Beijing has publicly declared that it has policy objectives in the Arctic. In 2014, Xi Jinping declared that China intended to "join the ranks of the world's polar powers."²⁸ Four years later, in 2018, China released an official white paper entitled *China's Arctic Policy*, in which it claimed

to be a “Near-Arctic State” and an “important stakeholder in Arctic affairs.”²⁹ In addition to staking a claim to participate in Arctic affairs, the white paper articulated many of Beijing’s policy objectives in the Arctic, which it discusses in the following order:

- Conducting scientific research in the Arctic
- Protecting the environment and addressing the effects of climate change
- Securing access to natural resources
- Developing Arctic shipping routes
- Participating in the governance of the Arctic
- Safeguarding PRC security interests in the Arctic

“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.”

–*China’s Arctic Policy, 2018*

This section of the report draws from PRC official statements—particularly the 2018 white paper—to discuss each of Beijing’s articulated objectives in the Arctic. The actions that Beijing has taken in pursuit of these objectives are discussed in Sections 3 and 4.

2.3.1 Conducting scientific research

PRC-backed scientific research activities in the Arctic provide a foundation for pursuing its other regional objectives. The data gathered during PRC scientific research expeditions to the Arctic provide the basis for monitoring the effects of climate change, locating and extracting Arctic resources, and developing shipping routes. For instance, during the ninth Chinese National Arctic Research Expedition in 2018, PRC scientists gathered data on physical oceanography, marine meteorology, sea ice, marine chemistry, marine biology, marine ecology, geology, and geophysics in the Bering Sea, Chukchi Sea, Chukchi Plateau, Mendeleev Ridge, and Canada Basin.³⁰

The PRC’s scientific research stations in the Arctic played a critical role in securing China’s status as an observer on the Arctic Council. Beijing pointed to the physical presence of its research stations to bolster its claim that it is an Arctic stakeholder.³¹ The PRC’s scientific research activities in the Arctic also create opportunities for bilateral cooperation with Arctic states. Finally, some of Beijing’s Arctic research is dual-use, lending itself to both civilian and military applications. For example, as discussed further in Section 3.5, China’s Arctic satellite stations could have military utility by offering intelligence, surveillance, and reconnaissance support.

2.3.2 Protecting the environment and addressing the effects of climate change

Beijing also aspires to protect the Arctic environment and combat the effects of climate change.³² Beijing points to the effects that environmental change in the Arctic has had on China's agriculture, forestry, fishery, and marine industries as justification for its participation in Arctic affairs.³³ For these reasons, the PRC conducts scientific research in the Arctic with the stated goal of protecting the environment and mitigating the effects of climate change.³⁴

It is not surprising that Beijing is interested in monitoring the effects of climate change in the Arctic. Climate change in the Arctic is a threat multiplier, and PRC officials claim that changes there will directly affect their country. As the world's largest source of greenhouse gas emissions, China plays a large part in the global climate crisis. Moreover, experts predict that climate change will have an increasing effect on China over the coming decades, causing rising sea levels, stronger storms, and more intense heat waves. A 2020 report from China's National Climate Center claims that China's average temperature and sea levels have risen more quickly than the global average. These changes have led to worsening droughts, floods, and storms that kill hundreds of PRC nationals and destroy millions of acres of crops each year.³⁵

2.3.3 Securing access to natural resources

Beijing has also stated that it seeks access to the Arctic's natural resources to fuel China's continued economic growth. A significant portion of the 2018 white paper is devoted to discussing China's desire to participate in the development of Arctic resources, including oil, gas, and mineral resources; geothermal, wind, and other clean energy resources; and Arctic fisheries.³⁶

PRC government-affiliated analysts have highlighted the "global strategic importance" of Arctic oil and gas reserves.³⁷ This interest in Arctic energy resources is not surprising given the PRC's dependence on oil imports and the Arctic's substantial oil and gas reserves.³⁸ According to the US Energy Information Administration, China has been the world's largest oil importer since 2017—importing 10.1 million barrels of crude oil per day in 2019. The percentage of its energy mix constituted by imported oil is expected to increase in the future.³⁹

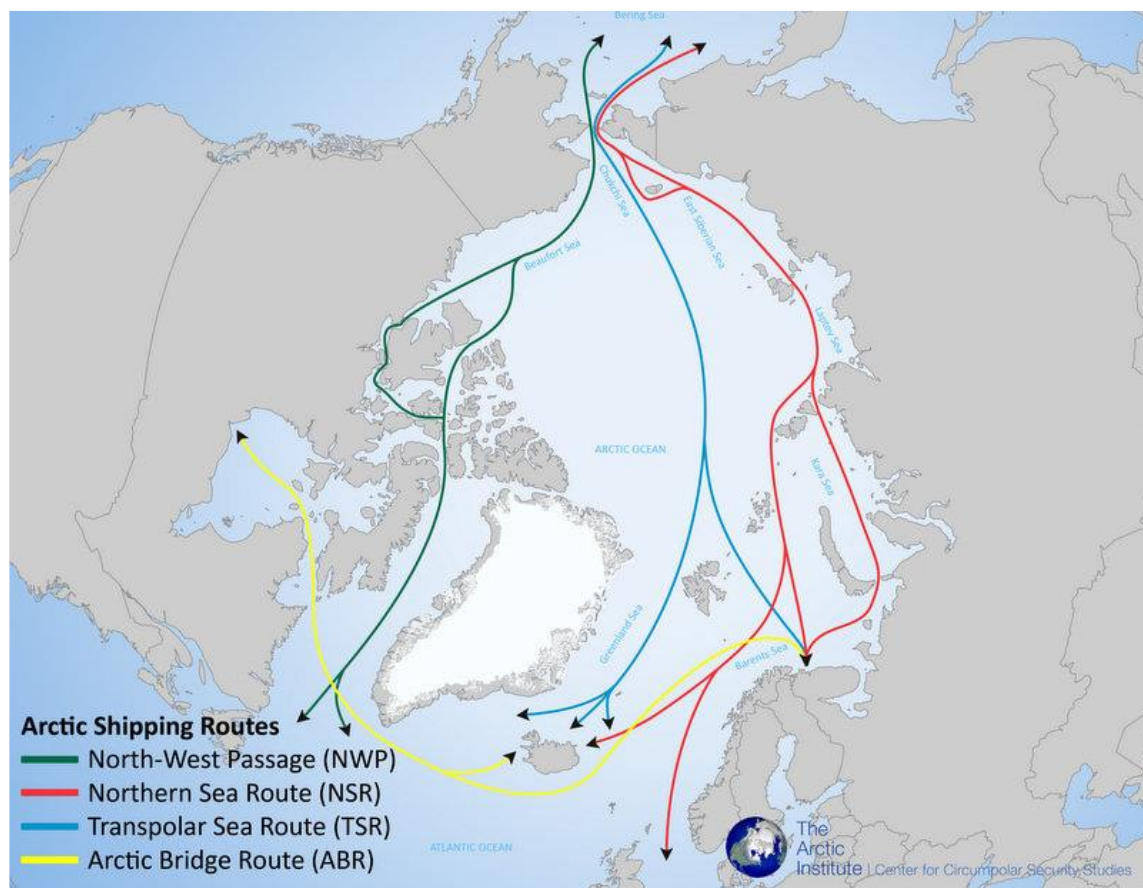
2.3.4 Developing shipping routes

The PRC seeks to develop shipping routes in the Arctic. In 2017, Beijing proposed expanding its BRI by developing Arctic shipping routes to form a "Polar Silk Road" (also referred to as "Ice Silk Road"), encouraging PRC-based enterprises to "participate in the infrastructure construction for these routes and conduct commercial trial voyages" to "pave the way for their commercial and regularized operation."⁴⁰ (For more information on the Polar Silk Road, see

Appendix A.) Arctic shipping routes would drastically reduce the time and distance of transporting goods between Northeast Asia and Europe and North America.⁴¹ According to one estimate, the Northern Sea Route (NSR) would reduce shipping distances between commercial hubs in Northeast Asia and Western Europe by approximately 5,000 miles.⁴² Figure 1 includes a map of major Arctic shipping routes.

Arctic shipping routes also would provide alternatives to the Suez Canal, Panama Canal, and the Strait of Malacca, all of which are potential chokepoints.⁴³ The Strait of Malacca is particularly critical for China's seaborne trade—almost all of China's trade with Europe, Africa, South Asia, and the Middle East passes through this narrow channel.⁴⁴

Figure 1. Arctic shipping routes



Source: The Arctic Institute, <https://climateinterpreter.org/content/climate-change-and-arctic>.

2.3.5 Participating in Arctic governance

Beijing explicitly aspires to “participate in the governance of the Arctic.”⁴⁵ Securing a voice in regional affairs is key to achieving Beijing’s aspiration of “joining the ranks of the world’s polar powers.”⁴⁶ PRC leaders view establishing China as a polar power as a critical step toward achieving the larger strategic objective of becoming a maritime great power.⁴⁷ It is also critical to fulfilling Beijing’s other objectives in the Arctic. As a non-Arctic state, China depends on regional states for access to the Arctic. Securing a seat at the table in Arctic affairs through participation in regional forums provides China with a means of advocating for its interests. For instance, as climate change provides new opportunities for shipping, China hopes to have a voice in decisions about the use of those routes. The PRC’s efforts to participate in regional governance are discussed in Section 3.1.

2.3.6 Safeguarding PRC security interests in the Arctic

Beijing asserts that it has security interests in the Arctic that it intends to safeguard. The white paper frames these interests in benign terms, stating that “peace and stability” in the Arctic “serve the fundamental interest of all countries including China.” The white paper then conveys Beijing’s commitment to “maintaining peace and stability, protecting lives and property, and ensuring the security of maritime trade, operations and transport in the region.”⁴⁸ Both the white paper and recent remarks by Xi Jinping single out the security of Arctic shipping routes as especially important to Beijing.⁴⁹ In a written interview with Russian media outlets, Xi Jinping emphasized that “security and environmental protection are crucial in developing these routes.”⁵⁰

Some evidence suggests that the PRC military is thinking about how to approach future operations in the Arctic. The 2015 and 2020 editions of *Science of Military Strategy*, a volume published by the Chinese Academy of Military Sciences, each devote an entire section to polar issues.⁵¹ The 2020 edition describes the polar regions as “an important direction in the expansion of our country’s interests overseas” that creates “new tasks and missions” for the PLA. It offers the following “strategic guidance” for employing forces in the polar regions:

- **Military operations in the polar regions must serve the PRC’s overall foreign policies and strategies.** Noting that polar activities “touch on complex and strict international treaty obligations” and “sensitive international politics”—especially in the Arctic—the authors advise that military operations in the polar regions must be preceded by “integrated planning and preparation.” This planning and preparation should include coordination between the diplomatic, commercial, and scientific sectors and relevant departments to “ensure that the use of polar military forces is conducted under the country’s overall strategy.”

- **Military operations in the polar regions should adhere to a “military-civilian hybrid” model.** The authors advise “closely combining military and civilian forces,” using the PLA to “support polar scientific observation and other operations” and “actively provide equipment, technology, and medical support.” As the PLA’s ability to project power over long distances increases, the authors recommend “considering using large transport aircraft and military support boats, and special surface transportation vehicles to provide logistics support for national polar scientific research.”
- **Military operations in the polar regions should focus on “polar rescue and military operations other than war.”** The authors advise “strengthening capabilities like polar situational awareness and monitoring; communications, air, sea, and land mobility in polar climates; and specialized rescue” with the goal of developing the capability to rapidly and effectively conduct rescue operations.
- **The military should actively explore international cooperation in the polar regions.** The authors emphasize the importance of military diplomacy. They advise that the PLA, when supporting scientific missions, should “maintain an active and open posture, and broadly develop coordination and cooperation with the civilian and military forces of other countries.”⁵²

3. How Does China Pursue Its Objectives in the Region?

China employs multiple elements of state power to pursue its objectives in the Arctic. Indeed, Beijing characterizes its participation in polar affairs as “multi-level, omni-dimensional and wide-ranging.”⁵³ Beijing seeks to advance its interests in the Arctic in the following ways:

- Participating in regional governance
- Promoting a positive image of China’s role in the Arctic
- Conducting a robust Arctic science program
- Investing in ships and aircraft capable of operating in the Arctic
- Preparing for military operations in the region
- Investing in the development of the region

We discuss each of these approaches in detail in the following sections. Table 2 lists key activities that the PRC has undertaken in pursuit of each of these lines of effort.

Table 2. Key PRC activities in the Arctic by line of effort

Line of effort	Key PRC activities
Participating in regional governance	• 2013: Became a formal observer to the Arctic Council • 2013: Joined the newly established Arctic Circle Forum • 2018: Signed agreement to prevent unregulated high seas fishing in the Arctic Ocean • 2019: Hosted Arctic Circle Forum meeting in Shanghai
Promoting a positive image of China's role in the Arctic	• 2013: Established China-Nordic Arctic Research Institute to serve as a platform for cooperation and raise awareness about Arctic issues • 2016: PRC Ministry of Foreign Affairs (MFA) appointed a special representative for Arctic affairs • 2018: PRC State Council Information Office released official white paper <i>China's Arctic Policy</i> • Ongoing: PRC officials and media promote narratives that aim to legitimize China's role in Arctic affairs, reassure Arctic states that China's objectives in the region are peaceful, and convince them that PRC activities are beneficial
Conducting a robust Arctic science program	• 1999: Organized first Arctic expedition • 2004: Polar Research Institute of China established Arctic Yellow River Station in Svalbard, Norway • 2016: Chinese Academy of Sciences (CAS) Institute of Remote Sensing and Digital Earth established China Remote Sensing Satellite North Pole Ground Station in Sweden • 2018: China-Iceland Arctic Scientific Research Station established in Karholl, Iceland • 2018: China and Finland signed an agreement to establish a joint research center for Arctic space observation and data-sharing services⁵⁴ • 2019: Russian and PRC-based scientists agreed to establish the Chinese-Russian Arctic Research Center
Investing in ships and aircraft capable of operating in the Arctic	• 1993: Purchased icebreaker from Ukraine and refitted it as <i>Xue Long (Snow Dragon)</i> • 2015: Purchased a Basler BT-67 fixed-wing cargo plane, Xueying 601, for polar operations • 2016: 13th Five-Year Plan called for construction of advanced icebreakers • 2018: Opened bidding for domestic construction of a nuclear-powered icebreaker • 2019: First domestically built icebreaker, <i>Xue Long II</i>, completed • 2020: 14th Five-Year Plan reiterated call for new icebreakers
Preparing for military operations in the region	• 2015: In September, three PLA Navy (PLAN) surface ships sailed near the Aleutian Islands • 2015: PLAN ships made the PLAN's first port calls to Copenhagen, Stockholm, and Helsinki • 2015: PLA Academy of Military Science released an edition of <i>Science of Military Strategy</i> that included a section on polar issues • 2020: Newest edition of <i>Science of Military Strategy</i> included a section on polar issues
Investing in the development of the region	• 2017: PRC proposed building a Polar Silk Road by developing Arctic shipping routes and associated infrastructure • 2017: <i>Xue Long</i> conducted first voyage of the Northwest Passage • 2018–2020: PRC-based entities invested in a slew of resource extraction and infrastructure development projects in the Arctic

Source: CNA.

3.1 Participating in regional governance

China seeks a voice in Arctic affairs by participating in international organizations that deal with regional issues. Key among these organizations is the Arctic Council, the region's preeminent intergovernmental forum. Since 2013, China has participated in the Arctic Council as an observer state.⁵⁵ As an observer, however, China's influence on the council is limited. PRC representatives may attend the governmental meetings that are open to them and participate in a range of working groups, task forces, and expert groups; however, they do not have voting rights.⁵⁶ China also participates in several other international organizations that deal with Arctic affairs. These organizations are listed in Table 3.

Table 3. International Arctic organizations in which China participates

Organization	Description	China's role
Arctic Council	The leading intergovernmental forum promoting cooperation in the Arctic. ⁵⁷	Observer (only the eight Arctic states can be full members).
Arctic Circle	The Arctic Circle describes itself as the "largest network of international dialogue and cooperation on the future of the Arctic." ⁵⁸	The Polar Research Institute of China (PRIC) and PRC state-run China Ocean Shipping Company (COSCO) are listed as partners. ⁵⁹ China hosted 2019 forum in Shanghai. ⁶⁰
Pacific Arctic Group (PAG)	Organized under the International Arctic Science Committee (IASC), PAG's mission is to serve as a regional partnership to plan, coordinate, and collaborate on Arctic science activities of mutual interest. ⁶¹ Appears to have been inactive since 2017.	PAG chair was He Jianfeng, director of the Polar Oceanography Division of PRIC. ⁶² PAG meetings have been hosted in China.
Arctic Economic Council	The council is an independent organization that seeks to facilitate Arctic business-to-business activities and responsible economic development. ⁶³	COSCO Shipping Lines Finland Oy, a subsidiary of COSCO, is a member of the Arctic Economic Council (AEC). ⁶⁴
North Pacific Coast Guard Forum (NPCGF)	Established in 2000, the NPCGF serves as a venue for its member states—Japan, Korea, Russia, the US, Canada, and China—to discuss mutual priorities on fishery enforcement, maritime security, illegal trafficking, joint operations, and emergency response activities. ⁶⁵	China's Coast Guard is a full member of NPCGF. China has also hosted the annual forum.

Organization	Description	China's role
United Nations (UN)	The UN is an international organization that seeks to maintain peace and security by serving as a venue for all nations to gather, discuss common problems, and find shared solutions. ⁶⁶	China highlights its permanent seat on the UN Security Council to argue that it shares responsibility for "promoting peace and security in the Arctic." ⁶⁷ China also invokes the UN Charter, the United Nations Convention on the Law of the Sea (UNCLOS), and relevant rules of the International Maritime Organization as the basis for its participation in building "a just, reasonable and well-organized Arctic governance system." ⁶⁸

Source: CNA.

China has taken on a prominent role in the Arctic Circle Assembly. Iceland established the organization in 2013, on the same day that it concluded a free trade agreement with China.⁶⁹ The Arctic Circle Assembly's October 2018 meeting included, for instance, a panel on "China and the Future of the Arctic: Belt and Road."⁷⁰ In May 2019, the PRC's Ministry of Natural Resources hosted an Arctic Circle China Forum in Shanghai, where discussion panels addressed a wide range of themes, including "Arctic governance and ocean cooperation," "Arctic geopolitics," and "trans-regional cooperation for a sustainable Arctic."⁷¹

China also seeks to leverage its participation in the United Nations (UN) and its subordinate organizations to gain a voice in Arctic affairs. For example, when expressing its commitment to build "a just, reasonable and well-organized Arctic governance system," China invokes "the UN Charter, UNCLOS [United Nations Convention on the Law of the Sea], treaties on climate change and the environment, and relevant rules of the International Maritime Organization."⁷² In particular, China highlights its permanent seat on the UN Security Council to argue that it "shoulders the important mission of jointly promoting peace and security in the Arctic."⁷³

The PRC's efforts to play a role in Arctic governance appear to be making headway. In June 2018, the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean (the CAO Agreement) was published after two years and six rounds of negotiations among the Arctic coastal states (Canada, Denmark, Norway, Russia, and the United States) and five key states with distant-water fishing capacity (China, the European Union, Iceland, Japan, and South Korea).⁷⁴ China reportedly played an active role in the six rounds of negotiations that took place over the course of two years. Indeed, at least one observer has noted that several key aspects of the agreement are in line with the positions articulated in China's Arctic white paper.⁷⁵

3.2 Promoting a positive image of China's role in the Arctic

PRC officials and state-directed media seek to promote a positive image of China's role in the Arctic in order to further Beijing's interests in the region. They promote narratives that aim to legitimize China's role in Arctic affairs, reassure Arctic states that China's objectives in the region are peaceful, and convince them that PRC activities will ultimately benefit the international community. These narratives are captured in Table 4.

Table 4. PRC narratives about China's role in Arctic affairs

Narrative	Description
<i>China has a legitimate role in Arctic affairs.</i>	PRC official statements and state-run media assert that China is a "near-Arctic state" and an "important stakeholder in Arctic affairs" that has long been involved in the region. ⁷⁶ They contend that developments in the Arctic affect China, which therefore has the right to participate Arctic affairs. ⁷⁷
<i>China respects the sovereignty of Arctic states and the traditions and cultures of Arctic Indigenous peoples.</i>	PRC official statements and foreign-directed media seek to reassure Arctic states that Beijing "respects the sovereignty, sovereign rights, and jurisdiction enjoyed by the Arctic States in this region." ⁷⁸ PRC official statements and media also promise to "respect the traditions and cultures of Arctic residents, including Indigenous peoples." ⁷⁹
<i>China wants to contribute to peace, stability, and sustainable development in the region.</i>	To allay concerns about its role in the region and its interest in Arctic resources, Beijing asserts that China "stands ready to contribute to peace, stability and sustainable development in the Arctic." ⁸⁰
<i>The PRC's scientific research in the Arctic will contribute to efforts to protect the environment and combat climate change.</i>	PRC official statements and state-run media highlight the PRC's scientific research activities in the region and emphasize their potential to help protect the environment and mitigate the effects of climate change. ⁸¹ China has also shared Arctic research data with other countries and invited foreign scientists to participate in its Arctic expeditions. ⁸²

Source: CNA.

3.3 Conducting a robust Arctic science program

China conducts an extensive Arctic science program that includes research on a wide range of subjects. During China's ninth Arctic Research Expedition, for instance, scientists from the PRC conducted "comprehensive surveys in the fields of physical oceanography, marine meteorology...marine chemistry, marine biology, marine ecology, geology, and geophysics."⁸³ This program helps Beijing to develop the technological capabilities necessary to operate in the Arctic, understand the effects of climate change, and identify and extract natural resources in the region.

The Polar Research Institute of China (PRIC) plays a key role in overseeing PRC-based scientific research activities in the Arctic. Established in 1989, PRIC is directly subordinate to the Ministry of Natural Resources and is responsible for operating and managing PRC icebreakers, *MV Xue Long* and *MV Xue Long 2*, and organizing and executing research expeditions to the Arctic. Since 1999, PRIC has organized and overseen nearly a dozen research expeditions to the Arctic, the most recent of which was conducted by *MV Xue Long 2*, China's first domestically built icebreaker.⁸⁴ For more on the PRIC, see Appendix B.

The PRIC also operates two Arctic research stations—the Arctic Yellow River Station in Norway and China-Iceland Arctic Scientific Research Station in Iceland.⁸⁵ In addition to these two stations, the CAS's Institute of Remote Sensing and Digital Earth operates a satellite ground station in Sweden and has reached an agreement with Finland to establish a joint research center for satellite observation and data sharing in northern Finland.⁸⁶ These research stations not only serve as bases for research, but they also provide China with a physical presence in the region, which Beijing uses to support its case that it is a stakeholder in regional affairs.

China participates in a range of multilateral Arctic science organizations, and it has established several bilateral science partnerships with Arctic states. As noted above, Beijing's research station with Iceland is cooperatively managed with an Icelandic institution. Its forthcoming station in Finland is similarly a joint enterprise. China also engages in international scientific cooperation related to the Arctic outside of the Arctic Circle. Figure 2 highlights some of the PRC's multilateral and bilateral science programs and partnerships beyond the Arctic.

Figure 2. China's Arctic research stations and international partnerships



Source: CNA.

Beijing's use of presence to further its interests

Beijing also seeks to establish a physical presence in the Arctic in order to bolster its claim that it is a stakeholder in Arctic affairs. It does this, in part, by using international law. For example, Beijing used its status as a party to the Spitsbergen Treaty to establish two research stations in Svalbard, Norway.⁸⁷ China also invokes the United Nations Convention on the Law of the Sea (UNCLOS) to assert its right to navigational freedom in the Arctic. PRC-flagged vessels exercise that right by operating in the Arctic's international waters. China has dispatched research vessels to conduct 11 expeditions to date, and PRC-flagged commercial vessels are increasingly traversing the NSR, which hugs Russia's northern coast.⁸⁸ Of note, when PRC-flagged vessels use the NSR, they abide by Russian regulations. Some have argued that the onerous regulations that Russia has established for transiting its Arctic littoral are at odds with navigational freedom.⁸⁹

3.4 Investing in ships and aircraft capable of operating in the Arctic

China is investing in ships and aircraft capable of operating in the Arctic. As articulated in the 13th Five-Year Plan in 2016, the PRC seeks to “build new advanced icebreakers,” an objective reiterated in the 14th Five-Year Plan issued in 2021.⁹⁰ PRC-based entities have been working to advance this objective. In 2019, China launched *Xue Long 2*, its second polar icebreaker and its first to be domestically constructed.⁹¹ Also in 2019, the China Shipbuilding Corporation, the entity that co-designed *Xue Long 2*, released a model and technical details of a new icebreaker displacing 26,000 tons, which will be larger than the two icebreakers operated by the US Coast Guard.⁹²

China also appears to be working toward a nuclear-powered icebreaker, among other advanced polar exploration capabilities. In a 2016 document on developing “emerging strategic industries,” the PRC's State Council instructed that China should develop “a new generation of deep sea and far seas Polar technology,” such as “a polar robot and a nuclear-powered icebreaker.”⁹³ In 2018, the China National Nuclear Corporation issued a request for proposals to help construct a nuclear-powered icebreaker—currently, only Russia operates a nuclear-powered icebreaker.⁹⁴ As of this writing, it is unclear who won the contract, but Beijing appears to be intent on developing cutting-edge capabilities to operate in the Arctic.

The PLAN has long operated a fleet of smaller icebreakers that it uses to clear seasonal ice in the Bohai Bay and Yellow Sea.⁹⁵ Some of the service's icebreakers are relatively new—at least one was commissioned as recently as 2016.⁹⁶ Although the limited range of these vessels

(7,000 miles) makes them unsuited to Arctic use, it is worth highlighting that the PLAN is maintaining its ability to operate icebreakers. Table 5 lists China's icebreakers.

Table 5. PRC icebreakers

Name	Operator	Date commissioned/ acquired
<i>Xue Long</i> ⁹⁷	PRIC	1993
<i>Xue Long 2</i> ⁹⁸	PRIC	2019
<i>Haibing 72</i> ⁹⁹	PLA Navy	2016
<i>Haibing 722</i> ¹⁰⁰	PLA Navy	2015
<i>Haibing 721</i> ¹⁰¹	PLA Navy	1969
<i>Haijing 1411</i> ¹⁰²	China Coast Guard	1983

Source: CNA.

PRC-based entities, along with their Russia counterparts, have also begun co-managing a fleet of icebreaking tankers designed to transport liquefied natural gas (LNG) through the Arctic. In June 2019, the China Silk Road Fund and the PRC state shipping giant China Ocean Shipping Company (COSCO) signed an agreement with Russia's Novatek and Sovcomflot to establish Maritime Arctic Transport LLC, a joint venture that will manage the tanker fleet.¹⁰³ According to Novatek, the joint venture is intended to "facilitate the rapid transformation of the NSR into a global and commercially effective transportation corridor between the Pacific and Atlantic basins."¹⁰⁴ The fleet will include Arc7 tankers designed by Rosneft's Zvezda shipyard in cooperation with Samsung Heavy Industries (SHI) and constructed by Daewoo Shipbuilding & Marine Engineering Co., Ltd (DSME) at its Okpo shipyard in South Korea.¹⁰⁵ Of note, shipyards owned by PRC-based companies also have the capability to construct ice-class tankers. In late 2018, Guangzhou Shipyard International Company Ltd completed the first Arc7 tanker built in China for the Yamal LNG project.¹⁰⁶

The PRC has also acquired aircraft suitable for polar operations, and it appears to be planning to expand its inventory of such planes. In 2015, Beijing purchased a Basler BT-67 fixed-wing cargo plane for polar operations and named it the Xueying 601.¹⁰⁷ During *Xue Long*'s 2015–2016 mission to Antarctica, the PRIC used the aircraft for "47 flights totaling 264 hours," and according to Sun Bo, deputy director of the PRIC, China will develop a "fleet" of similar planes.¹⁰⁸ The PRC also uses helicopters in the Arctic.¹⁰⁹ *Xue Long* has been equipped with a Kamov Ka-32 helicopter (called the Xueying 102), and *Xue Long 2* carries an AgustaWestland AW169 (called the Xueying 301).¹¹⁰ *Xue Long 2* is also reported to have a hangar large enough for two helicopters, suggesting that China has plans to acquire or develop additional rotary-wing aircraft for polar operations.¹¹¹ Table 6 lists China's polar-capable aircraft.

Table 6. PRC's polar-capable aircraft

Name	Operator	Date acquired
Xueying 601 (Basler BT-67) ¹¹²	PRIC	2015
Xueying 301 (AgustaWestland AW169) ¹¹³	PRIC	2017
Xueying 102 (Kamov Ka-32) ¹¹⁴	PRIC	2009

Source: CNA.

3.5 Preparing for military operations in the Arctic

At present, China does not appear to actively employ the PRC military to pursue its interests in the Arctic. The PLAN has publicly operated near the Arctic on only a couple of occasions: in September 2015, three PLAN surface ships plied the southern reaches of the Bering Sea, near the Aleutian Islands; later that month, a group of vessels made the PLAN's first port calls in Copenhagen, Stockholm, and Helsinki.¹¹⁵ However, there is evidence that the PRC military is thinking about how to approach future operations in the Arctic (see Section 2.3.6). Moreover, a number of Beijing's civilian activities in the region are potentially dual-use and pave the way for future military operations that are consistent with these strategic precepts. These include the following activities that develop capacity, prepositioning capabilities, and familiarity with the operating environment that could enable future PLA operations in the Arctic:

- **Developing Arctic shipping routes.** China's efforts to develop the port infrastructure and services necessary to support commercial shipping via Arctic shipping routes could be used to support PLAN ships operating in the region.
- **Establishing satellite coverage of the Arctic.** China's satellite ground station in Kiruna, Sweden, increases the capabilities of PRC Earth observation and navigation satellite systems.¹¹⁶ The Swedish Defence Research Agency has publicly warned that the station could be used to complement China's military satellites.¹¹⁷ Additionally, on June 16, 2020, China's official Xinhua News Agency reported that the country's first polar observation satellite had started its Arctic mission and was "expected to achieve full coverage of the Arctic in seven days."¹¹⁸
- **Conducting hydrographic and topographic submarine surveys.** The PRC's Arctic research expeditions have conducted hydrographic and submarine topographic surveys that generate information that is critical for undersea naval operations.¹¹⁹ As noted earlier, *Science of Military Strategy* describes the Arctic as an "ideal hiding place"

for ballistic missile submarines—though it does not explicitly recommend deploying PLAN submarines to the region.¹²⁰ PRC shipbuilding journals have also explored the hull characteristics necessary for submarine operations in the Arctic.¹²¹

- **Constructing additional icebreakers.** Both the 13th and 14th Five-Year Plans called for the construction of new icebreakers; PRC-based entities have been building icebreakers, and are even considering the construction of a nuclear-powered icebreaker.¹²² These ships could potentially clear the way for PLAN ships and assist with resupply and search-and-rescue missions in the Arctic.
- **Establishing a physical presence.** PRC research stations and the activities of PRC-based commercial entities—including ships—in the Arctic help to normalize a PRC presence in the region. They also create the potential for the PLA to preposition supplies and provide opportunities for the PLA to employ a “military-civilian hybrid” model.
- **Gaining operational experience.** PRC scientific and commercial activities in the Arctic also provide the PLA opportunities to gain valuable experience operating in the region’s challenging environment. This is especially true for China’s icebreakers.

3.6 Investing in the development of the region

China pursues its interest in developing the region’s natural resources, shipping lanes, and supporting infrastructure primarily through bilateral agreements and investments. Beijing pursues its interests in resource extraction through partnerships because much of the region’s most desirable resources—including oil and gas deposits—are located within Arctic states’ territories or exclusive economic zones.¹²³ Investment by PRC-based entities in what are often very underdeveloped areas is appealing to a number of Arctic states that would have difficulty justifying the costs necessary to develop those areas on their own. Section 4 discusses this dimension of PRC strategy in detail.

4. What Is the Role of FDI in China's Efforts to Fulfill Its Goals in the Arctic?

Economic tools—including FDI—play a unique role in Beijing's efforts to advance its interests in the Arctic. As a non-Arctic state, China depends on the states in the region for access to pursue its interests. One way to secure access is through economic incentives, such as FDI. The Organisation for Economic Co-operation and Development defines *FDI* as “a category of cross-border investment in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy.”¹²⁴ This section examines how the PRC party-state employs FDI to further its interests in the Arctic. We use the following techniques:

- Identifying the mechanisms that Beijing employs to ensure that PRC-based firms' activities and investments overseas further (or at least do not contravene) party-state objectives.
- Examining PRC economic activities in the Arctic to identify the role that FDI plays in furthering party-state objectives in the region.

4.1 Party-state influence over PRC-based companies

Beijing has several mechanisms for shaping the behavior of PRC-based firms in ways that further its policy objectives in the Arctic. These include the following:

- Government-issued guidance and regulations
- Direct management of PRC state-owned enterprises (SOEs)
- CCP oversight of public and private PRC-based companies

4.1.1 Government-issued guidance, laws, and regulations

The PRC party-state uses official guidance, laws, and regulations to ensure that PRC-based companies' activities in the Arctic align with Beijing's strategic objectives.¹²⁵ Key among these are a series of regulations issued in 2017. In response to concerns associated with an increase

in capital leaving the country, the PRC government issued three new rules governing PRC-based firms' overseas investments:

- **Guiding Opinions on Further Guiding and Regulating Overseas Investment** articulates Beijing's preferences about the industries that PRC-based investors should and should not target. They divide China's overseas investments originating in the PRC into three categories: encouraged, restricted, and prohibited (see Table 7).¹²⁶
- **Measures for the Administration of Outbound Investment by Enterprises** provides Beijing with a mechanism to enforce its preferences about the composition of overseas investment by requiring PRC-based entities seeking to invest in sensitive industries to obtain approval from the National Development and Reform Commission (NDRC).¹²⁷
- **Catalogue of Sensitive Industries for Overseas Investment** reinforces Beijing's determination to curb investments in certain industries.¹²⁸

Table 7. Encouraged, restricted, and prohibited investments¹²⁹

Encouraged	Restricted	Prohibited
• Infrastructure that advances the BRI • Investments that promote the export of China's production capacity, high-quality equipment, and technical standards • High-tech and advanced manufacturing and overseas research and development centers • Exploration and development of oil, natural gas, minerals, and other natural resources • Agriculture, animal husbandry, and fisheries • Service sector investments, including business and trade services, logistics, qualified financial institutions establishing overseas branches	• Investments in countries with which China has no diplomatic relations or in regions in which there is war or conflict • Real estate, hotels, movie theaters, entertainment industries, and sports clubs • Equity investment funds or investment platforms without specific projects • Investments using obsolete production equipment that does not comply with the target country's technical standards and regulations • Investments that do not meet the target country's environmental, energy efficiency, and safety standards	• Investments that involve the export of military core technologies or equipment without government approval • Investments that involve the export of restricted technologies or equipment • Gambling and pornography • Investments prohibited by international agreements • Other investments that may harm China's interests and security

Source: CNA.

These rules encourage overseas investment in areas that advance national policies—including PRC policy objectives in the Arctic—and discourage overseas investment in areas that do not. According to Zhou Xiaochuan, former governor of the People’s Bank of China (PBOC), the goal of these rules is to discourage PRC-based companies from buying assets that bring little benefit to China’s economy and to encourage PRC-based firms to make acquisitions that are consistent with national goals, including the following:¹³⁰

- Developing China’s BRI, President Xi Jinping’s signature foreign policy initiative that has since been expanded to include the Polar Silk Road. According to *China’s Arctic Policy*, Beijing “encourages its enterprises to participate in the infrastructure construction for these [Arctic shipping] routes and conduct commercial trial voyages.”¹³¹
- Implementing “Made in China 2025,” Beijing’s plan to transform China into an advanced manufacturing superpower.
- Enhancing energy and food security. In the Arctic, PRC-based entities are heavily involved in resource exploration and extraction and in developing shipping routes that provide alternatives to the Strait of Malacca, through which most of China’s oil imports travel, and the Straits of Indonesia.

Potentially “restricted” investments in the Arctic

At least two prominent examples of failed PRC investments in the Arctic that took place prior to 2017 would likely be considered “restricted” under these new regulations: Huang Nubo’s ill-fated attempt to build a luxury hotel and golf course in northern Iceland and the General Nice Group’s attempted purchase of the abandoned Grønneidal naval base in Greenland. Under current PRC regulations, both projects would be subject to greater PRC government scrutiny and could even be forbidden from moving forward.

4.1.2 Direct management of SOEs

Many—if not most—projects in the Arctic involving PRC-based entities involve SOEs that are wholly or majority-owned by the central government. These SOEs and their subsidiaries are managed by a ministerial-level entity called the State-Owned Assets Supervision and Administration Commission (SASAC), which is directly subordinate to the State Council.¹³² SASAC is responsible for appointing or removing top executives, assessing SOE performance, approving mergers and acquisitions, and drafting laws or regulations that govern the operation of SOEs.¹³³ SASAC’s duties also include “reviewing the development strategies and plans of the supervised companies,” and “supervising” the companies’ “major overseas investments.”¹³⁴ SASAC is also in charge of SOEs’ “external propaganda” and “foreign affairs associated with enterprises’ overseas operations.”¹³⁵ In short, SASAC ensures that these SOEs’ overseas

investment activities are in line with national strategy and serve to further PRC interests, including in the Arctic. Table 8 lists centrally owned SOEs involved in Arctic projects.

Table 8. PRC state-owned enterprises involved in the Arctic

SOE	Activities in the Arctic
China Communications Construction Company (CCCC)	In 2018, CCCC put forward a bid to build airports in Greenland. ¹³⁶ It is also involved in the construction of the Helsinki-Tallinn Tunnel in Finland. ¹³⁷
China COSCO Shipping Co., Ltd	COSCO seeks to normalize Arctic navigation. In 2019, nine COSCO ships completed “navigation missions” in the Arctic Northeast Passage. Between 2013 and 2019, COSCO has sent 18 different ships to complete 31 Northeast Passage voyages. ¹³⁸
China Minmetals	A subsidiary of China Minmetals is the largest shareholder of Minerals and Metals Group (MMG), which is involved in the Izok Corridor Project in the Canadian Arctic. The project includes large zinc and copper deposits in two locations—Izok and High Lakes. ¹³⁹
China National Chemical Engineering	In October 2019, a subsidiary of China National Chemical Engineering signed an agreement with the Baltic Chemical Complex of Russia to build a natural gas processing and chemical plant on the Russian shoreline of the Gulf of Finland. ¹⁴⁰
China Nonferrous Metal Mining Group	China Nonferrous and Ironbark Zinc Ltd. signed a memorandum of understanding sometime in 2016 or 2017 for financing and construction of the Citronen Project in the far north of Greenland. Ironbark allowed China Nonferrous the option of obtaining up to 19.9 percent of options in the project. ¹⁴¹
China Poly Group Co., Ltd	Poly Technologies, a subsidiary of Poly Group, signed a framework agreement on the railway project. In October 2016, Poly Group signed an agreement with the Russian Northern Shipping Company Arkhangelsk to build a deep-sea port in Arkhangelsk. ¹⁴²
China Railway Engineering	China Railway Engineering is involved in the construction of the Helsinki-Tallinn Tunnel in Finland. ¹⁴³
China Railway International Group	China Railway International Group is involved in the construction of the Helsinki-Tallinn Tunnel in Finland. ¹⁴⁴
China National Offshore Oil Corporation (CNOOC)	CNOOC is a shareholder in two LNG plants set up by Russia’s Novatek in the Arctic. It owns a 10 percent share in Novatek’s second LNG plant (LNG-2). ¹⁴⁵ CNOOC has also expressed interest in bidding for oil and gas blocks in Greenland. ¹⁴⁶
China National Petroleum Corporation (CNPC)	CNPC is a shareholder in two LNG plants set up by Russia’s Novatek in the Arctic. It owns a 10 percent share in Novatek’s second LNG plant (LNG-2) and a roughly 20 percent share in Yamal LNG, Novatek’s first LNG plant in the Arctic. ¹⁴⁷ CNPC has also expressed interest in bidding for oil and gas blocks in Greenland. ¹⁴⁸
China Oil Field Services (COSL)	A subsidiary of CNOOC, COSL rigs are engaged in oil exploration and extraction on behalf of Gazprom in the Kara Sea. ¹⁴⁹
Sinosteel	Sinosteel signed an engineering, procurement, and construction (EPC) contract and an associated mine finance package with Eurasia Mining for its Monchetundra PGM-gold-copper-nickel project on the Kola Peninsula in Russia. ¹⁵⁰

Source: CNA.

State-owned enterprises in China

SOEs have played a key role in the PRC economy since the founding of the PRC in 1949. As China emerged from a prolonged period of warfare and underdevelopment, the CCP used SOEs to undertake a variety of nation-building tasks, including infrastructure development, agricultural reform, and general industrialization. According to one state-owned PRC news publication, China currently has approximately 150,000 SOEs that employ over 30 million people.¹⁵¹ SOEs are overseen by different government organizations depending on what part of the PRC government owns them:

- ***State-Owned Assets Supervision and Administration Commission (SASAC):*** SASAC is a PRC government organization that reports directly to the State Council, the chief administrative authority of the PRC.¹⁵² It is responsible for managing 93 centrally owned SOEs and their subsidiaries.¹⁵³
- ***Provincial and municipal SASACs:*** Provincial and municipal governments in China maintain their own SASACs, which are responsible for managing enterprises owned by these governments.¹⁵⁴
- ***Central Huijin Investment Co., Ltd.:*** A state-owned investment company, Huijin holds controlling stakes in multiple state-owned banks and financial enterprises.¹⁵⁵ The Chinese State Council is the principal shareholder in Huijin and appoints all members of its board of directors.¹⁵⁶
- ***Ministry of Finance:*** China's Ministry of Finance regulates a number of centrally controlled banks and financial services organizations.¹⁵⁷
- ***Ministry of Education:*** The Ministry of Education has ultimate responsibility for companies founded by universities under its control, including Peking University, Tsinghua University, and Renmin University of China.¹⁵⁸

Although the “reform and opening” policies of the 1980s allowed for the creation of private enterprises in China, SOEs continue to dominate the PRC economy. According to *Fortune* magazine, the 10 largest companies in China by revenue are all centrally owned SOEs.¹⁵⁹ SOEs also control or maintain influential positions in numerous sectors of the PRC economy. In 2006, the State Council identified seven “strategic industries” in which the state must maintain “absolute control,” such as defense, electricity production, petroleum, telecommunications, coal mining, aviation, and shipping.¹⁶⁰ The State Council also identified “pillar industries” in which the state must maintain “strong influence,” including machinery, electronics, information technology, automobiles, steel, nonferrous metals, chemicals, and construction.¹⁶¹ Finally, the state also maintains strong influence over the PRC financial sector—the country's five largest banks are all centrally controlled SOEs.¹⁶²

“Mixed ownership”

Notably, private firms can own stakes in SOEs and vice versa. In the 1990s, the PRC government introduced “mixed ownership reforms” aimed at increasing private ownership of SOEs in order to improve their efficiency and commercial competitiveness.¹⁶³ In recent years, the emphasis of these reforms appears to have shifted toward encouraging private companies to accept investment from state-owned entities.¹⁶⁴ As a result, PRC party-state entities hold ownership stakes in private PRC-based firms, and therefore influence their business operations. For example, the Institute of Multipurpose Utilization of Mineral Resources (IMUMR) is the largest stakeholder (14.04 percent)¹⁶⁵ in Shenghe Resources, which is involved in the development of the Kvanefjeld project in Greenland.¹⁶⁶ IMUMR is a state-owned research institute that belongs to the China Geological Survey, which is directly subordinate to the Ministry of Natural Resources.¹⁶⁷

4.1.3 CCP oversight of PRC-based companies

The CCP also seeks to influence the behavior of PRC-based companies. In recent years, the party has moved to increase its influence over both private PRC-based firms and SOEs, especially firms operating overseas in places like the Arctic. This effort is part of a broader campaign that has emerged under the leadership of Xi Jinping to reassert the CCP’s control over PRC society.¹⁶⁸ Key aspects of this campaign include the following:

- **Push to increase CCP oversight of private firms.** Xi Jinping has led an effort to increase the influence of the CCP within private companies.¹⁶⁹ In 2018, the Party Central Committee issued its Opinion on Strengthening and Improving Non-Public Enterprises’ Party-Building Work, which articulated the CCP’s mission to “consolidate the party’s ruling foundation” inside private PRC-based companies.¹⁷⁰ The party’s push for greater influence has compelled some firms to revise their articles of association in order to accommodate the CCP effort.¹⁷¹
- **Push to increase CCP oversight of SOEs.** Similarly, Xi Jinping has moved to increase the party’s oversight of SOEs.¹⁷² In 2020, the central government published rules requiring that companies “integrate party leadership into every element of corporate governance” within SOEs.¹⁷³
- **Focus on PRC-based firms operating overseas.** The CCP has especially sought to expand its presence in PRC-based firms operating overseas. The MFA has issued guidelines to ensure that PRC-based firms continue to carry out “party-building activities” abroad.¹⁷⁴ The MFA has also instructed PRC-based firms to be discreet about these activities.¹⁷⁵ Reportedly, this instruction stems from concerns that PRC-based companies’ party-building activities could run afoul of local laws or customs overseas.¹⁷⁶

Mechanisms of party oversight and influence

CCP mechanisms for exerting influence over PRC-based firms operating in the Arctic include (1) internal party organizations and (2) coopting corporate leadership.

Internal party organizations. All PRC SOEs and private enterprises large enough to undertake projects in the Arctic have internal party organizations. According to the CCP Constitution, any enterprise—including foreign joint ventures and private companies—with three or more CCP members is required to form a party cell, branch, or committee.¹⁷⁷ For instance, Shandong Gold Mining Co., Ltd—which attempted to purchase Canada’s TMAC Resources in 2020—has an internal party committee, the secretary of which is the company’s chairman, Chen Yumin.¹⁷⁸ These party organizations are typically responsible for promoting the party’s policies, ensuring compliance with state laws and regulations, and supporting management in developing their companies.¹⁷⁹

Coopting corporate leadership. The CCP coopts the executives of private firms by inviting them to hold political roles within the CCP and its affiliated organizations. For example, the CCP selects corporate executives to serve as delegates to the National People’s Congress (NPC), which is China’s parliament, or as members of the Chinese People’s Political Consultative Congress (CPPCC).¹⁸⁰ According to media reports in China, many leading technology entrepreneurs, such as Tencent Chief Executive Officer (CEO) Pony Ma, Baidu CEO Robin Li, and JD.com founder Richard Liu Qiangdong, participated—and even proposed legislation—in the March 2018 NPC and CPPCC.¹⁸¹ Shenghe Resources Vice President Tang Guangyue¹⁸² serves as one of three deputy directors of the Sichuan Political Consultative Conference Agriculture and Rural Committee.¹⁸³ Shenghe Resources is involved in the development of the Kvanefjeld project in Greenland.

4.1.4 The limits of party-state control over commercial entities

Although the party-state has a great deal of influence over the operations of PRC-based enterprises, PRC-based corporations are not purely the strategic instruments of the state. They are also commercial entities that must respond to market incentives. For example, financial risk has deterred a number of PRC-based enterprises from investing in the Arctic. CNOOC, the large state-owned offshore oil and gas developer, had an ownership stake in one of the most promising sites off Iceland’s coast, but cancelled the project when it became “too expensive and too risky.”¹⁸⁴ Similarly, according to Yun Sun of the Stimson Center, though Beijing officially encourages its companies to invest in Russia’s NSR, PRC-based firms appear reluctant to make such large and risky infrastructure investments.¹⁸⁵

Several years ago, Western analysts and PRC-based executives noted that the PRC government had reduced the subsidies that it provided to SOEs and private firms, compelling them to be more cautious about the projects they choose to pursue.¹⁸⁶ In 2015, the CEO of the General Nice

Group remarked that he had had difficulty securing financial incentives from the PRC government for Arctic projects and that he was contemplating merging with an SOE to gain greater government support.¹⁸⁷ In 2017, a senior employee of Zhongnan Holdings Group said that though the government was previously willing to extend generous subsidies to support resource exploration, the amount provided has been “cut significantly so exploration companies are more cautious about which overseas markets they should prioritize.”¹⁸⁸ Both of those remarks were made before the release of *China’s Arctic Policy*, and it is possible—indeed, likely—that the PRC government has been more supportive of recent investments in the Arctic that suit its interests.

4.2 How does FDI help the PRC advance its interests?

FDI is one of several economic tools that Beijing employs to pursue its interests in the Arctic. In this section, we examine PRC economic activities in the Arctic to identify the role that FDI plays in furthering the party-state’s efforts to secure access to Arctic resources, establish a physical presence in the region, develop shipping routes, and secure a voice in Arctic affairs.

China’s relative advantage

Arctic development projects tend to be expensive and risky. Many Arctic states lack the resources to undertake them, and firms inside and outside of the region are often reluctant to take on such risk. PRC-based firms with deep pockets and state backing, however, are uniquely positioned to take on large, risky projects. Indeed, the financial power of the PRC’s firms—and particularly its SOEs—can be considered the country’s relative advantage over essentially all other states with an interest in Arctic investment. With state backing, the PRC’s SOEs can make risky investments in Arctic projects that firms subject only to market incentives would be deterred from pursuing.

4.2.1 Secure rights to natural resources

FDI appears to be an important targeted tool that PRC-based entities use to secure rights to the Arctic’s natural resources. PRC-based entities use several economic tools to acquire stakes in natural resources and mining projects in the Arctic, which can help to fuel China’s continued economic growth and improve its energy security. These tools include FDI and the formation of joint ventures and the signing of production-sharing contracts (PSCs) with foreign firms. Table 9 identifies some of the most high-profile resource extraction projects in the Arctic involving PRC-based firms. Of the 22 projects listed, more than half (13) involved FDI. PRC-

based firms also engaged in at least four joint ventures with Arctic companies and three production-sharing agreements. However, only two of these ventures appear to have had any long-term success—China Investment Corporation’s involvement in a joint venture with a Canadian firm to develop bitumen deposits near Alberta and a production-sharing agreement between China Oilfield Services and Gazprom to exploit oil deposits in the Kara Sea.

PRC-based firms appear to have had mixed results in their attempts to secure a foothold in the extraction of Arctic resources. Among the 20 projects that we examined, at least 5 were blocked by the host country, cancelled, or otherwise stalled (shown in red in Table 9). Three projects appear to be ongoing but have gone bankrupt, defaulted, or ended up in arbitration (shown in yellow in Table 9).

Table 9. PRC-based entities’ involvement in natural resource extraction in the Arctic

Project	PRC-based entity	Type	Resource type	Location	Amount	Status	Year
Yukon Zinc ¹⁸⁹	Jinduicheng	FDI	Zinc	Yukon, Canada	Unknown	Ongoing (bankrupt)	2008
Canadian Royalties ¹⁹⁰	Jilin Jien Nickel	FDI	Nickel	Nunavik, Canada	\$800 million	Ongoing	2009
Red Dog Mine ¹⁹¹	China Investment Corporation	FDI	Zinc	Alaska, US	17.1% (since decreased)	Ongoing	2009
Lac Otneluk iron mine ¹⁹²	Wuhan Iron and Steel	Joint venture	Iron	Labrador Trough, Canada	\$121 million	Ongoing (defaulted in 2019)	2011
Roseneft ¹⁹³	CNPC	PSC	Oil	Barents and Pechora Seas, Russia	Unknown	Stalled	2013
Yamal LNG ¹⁹⁴	CNPC	FDI	LNG	Yamal Peninsula, Russia	20%	Ongoing	2013
Ironbark Zinc ¹⁹⁵	China Nonferrous Mining Corporation	MOU	Zinc and lead	Citronen Fjord, Greenland	Up to 20%	Unknown	2013
Nexen (North Sea)	CNOOC	FDI	Oil	North Sea, UK	\$15.1 billion	Ongoing	2013
Eykon Energy ¹⁹⁶	CNOOC	PSC	Oil	Dreki, Iceland	Unknown	Cancelled	2014
Isua iron ore field ¹⁹⁷	General Nice Group	FDI	Iron	Qeqqata, Greenland	\$2 billion	Ongoing	2015
Greenland Minerals ¹⁹⁸	Shenghe Resources	FDI	Rare earths and uranium	Kvanefjeld, Greenland	12.50%	Stalled	2016
Yamal LNG ¹⁹⁹	China Silk Road	FDI	LNG	Yamal Peninsula, Russia	\$1.2 billion (9.9%)	Ongoing	2016

Project	PRC-based entity	Type	Resource type	Location	Amount	Status	Year
Yamal LNG ²⁰⁰	China Development Bank; Export-Import Bank	Loan	LNG	Yamal Peninsula, Russia	\$12 billion	Ongoing	2016
Gazprom ²⁰¹	China Oilfield Service	PSC	Oil	Kara Sea, Russia	Unknown	Ongoing	2017
Monchetundra Project ²⁰²	SinoSteel	FDI	Palladium and platinum	Kola Peninsula, Russia	\$149.6 million	Ongoing	2019
Arctic LNG-2 ²⁰³	CNPC	FDI	LNG	Gydan Peninsular, Russia	10%	Ongoing	2019
Arctic LNG-2 ²⁰⁴	CNOOC	FDI	LNG	Gydan Peninsular, Russia	10%	Ongoing	2019
Shenghe Resources ²⁰⁵	China National Nuclear Corporation	Joint venture	Rare earths and uranium	Kvanefjeld, Greenland	Unknown	Stalled	2019
Payakha Oilfield ²⁰⁶	China National Chemical Engineering Group	FDI	Oil	Taymyr Peninsula, Russia	\$5 billion	Ongoing	2019
TMAC Resources ²⁰⁷	Shandong Gold	FDI	Gold	Nunavut, Canada	\$179 million	Blocked	2020

Source: CNA.

Note: Production-sharing contract (PSC)

Green = ongoing or successful; Yellow = ongoing but has gone bankrupt, defaulted, or ended up in arbitration; Red = blocked by the host country, cancelled, or otherwise stalled

4.2.2 Establish presence and develop shipping routes

FDI also appears to be a key tool that PRC-based entities use to develop Arctic shipping routes. To establish a physical presence in the Arctic and develop the infrastructure necessary to support resource extraction and commercial shipping in the region, PRC-based entities have invested in infrastructure projects, formed joint ventures with foreign shipping firms, and undertaken contracts to carry out various construction projects. In Table 10, we identify some of the most high-profile infrastructure projects in the Arctic involving PRC-based firms. At least nine of these projects involved FDI from PRC-based entities. In addition, in at least eight of the projects, a PRC-based firm was contracted to carry out the construction of an airport, railroad, bridge, or processing plant, creating an opportunity to establish a physical presence in the Arctic, if only temporarily.

Table 10. PRC-based entities' involvement in Arctic infrastructure projects

Project	PRC-based entities	Type	Location	Amount	Status	Year
Maritime Arctic Transport LLC ²⁰⁸	China Silk Road Fund; COSCO	Joint venture (with Sovcomflot & Novatek)	Russia	Unknown	Ongoing	2019
Helsinki-Tallin Tunnel ²⁰⁹	Touchstone Capital Partners, China Railway International Group, China Railway Engineering Company, and China Communications Construction Company	MOU	Gulf of Finland	\$17 billion	Blocked	2019
North Pole Wind project ²¹⁰	CGN	FDI	Piteå, Sweden	Unknown	Ongoing	2018
Kemijärvi Airport ²¹¹	China Polar Research Institute	Buy or lease and construction	Lapland, Finland	\$48 million (for construction only)	Blocked	2018
Vnesheconombank ²¹²	China Development Bank	Loan	Russia	\$9.5 billion (not all for Arctic)	Ongoing	2018
Kalaallit Airport ²¹³	China Communications Construction Company	FDI and construction	Nuuk, Ilulissat, and Qaqortoq Greenland	\$420 million	Abandoned	2017
Alaska Gasline Development Corporation ²¹⁴	Sinopec, CIC Capital, and Bank of China	FDI and construction	Alaska, US	\$43 billion	Abandoned	2017
Beitstad Bridge ²¹⁵	Sichuan Road and Bridge Group	Construction	Trøndelag, Norway	Unknown	Complete	2017
Port in Arkhangelsk ²¹⁶	Poly Group	FDI	Arkhangelsk, Russia	\$79 million	Unclear	2016
Arctic Connect ²¹⁷	Huawei Marine	Construction	Finland	Unknown	Unclear	2016
Former US naval base ²¹⁸	General Nice Group	FDI	Grønnedal, Greenland	Unknown	Blocked	2016
Biofuel plant ²¹⁹	Sunshine Kaidi New Energy Group	FDI and construction	Kemi, Finland	\$1.13 billion	Planning	2016
Belkomur Railroad project ²²⁰	Poly Technologies	FDI	Russia	\$4.5 billion	Unclear	2015
Land purchase ²²¹	Zhongkun Investment Group	FDI	Lyngen, Norway	\$4 million	Ongoing	2014
Halogaland Bridge ²²²	Sichuan Road and Bridge Group	Construction	Narvick, Norway	Unknown	Complete	2013
Nyhamna Gas Plant expansion ²²³	China Offshore Oil Engineering Corporation	Construction	Nyhamna Penninsula, Sweden	Unknown	Complete	2013
Land purchase ²²⁴	Zhongkun Investment Group	FDI	Grimsstadir, Iceland	\$8.8 million	Blocked	2012

Source: CNA.

Note: Green = ongoing or completed; Gray = status unclear; Red = blocked by the host country, cancelled, or abandoned

4.2.3 Secure a voice on Arctic affairs

Beijing uses FDI and broader economic activities to bolster its claim that it is an Arctic stakeholder and a state that deserves to have its voice heard on Arctic regional affairs. Beijing points to PRC-based entities' economic involvement in the Arctic as evidence for its assertion that Arctic affairs are increasingly transregional and that governance of the region cannot be the exclusive preserve of the Arctic states themselves. There is evidence that PRC-based analysts view corporations as potentially exercising political influence. According to Wang Chenguang, an analyst with the CCP's Central Committee, "Enterprises are increasingly influencing the structure and process of global governance."²²⁵ Although we have observed no evidence that PRC-based firms have sought to obtain or exercise influence in Arctic governance, the notion that enterprises operating in the Arctic might seek to influence the formulation of relevant regulations is not farfetched.

For example, a subsidiary of PRC state-owned shipping giant COSCO is a member of the Arctic Economic Council (AEC), an organization that aims to "promote sustainable economic development in the Arctic."²²⁶ To this end, the AEC has a number of working groups that write reports and issue recommendations on relevant Arctic regulations and best practices.²²⁷ To increase its influence, the AEC partners with other international organizations that address Arctic issues, including the Arctic Council.²²⁸ In 2019, the AEC signed a memorandum of understanding with the Arctic Council "to provide a framework for cooperation and to facilitate collaboration." The AEC had recommended that it "should be consulted" "when the Arctic Council or its Working Groups discuss issues that may have an impact on maritime transportation."²²⁹ As of this writing, COSCO Shipping Lines Finland Oy—a Finland-based subsidiary of PRC SOE COSCO—appears to be the AEC's lone member with ties to China, suggesting PRC influence on the council is limited.²³⁰

Along with other forms of economic cooperation, China may leverage FDI to increase Arctic states' willingness to accommodate its interests in the region. This appears to have been the case in Iceland. PRC-based money was instrumental in Iceland's recovery from the 2008 financial crisis. In 2013, Iceland became the first European state to sign a free trade agreement (FTA) with China. On the same day that Iceland and China signed the FTA, the two sides issued a joint statement in which Reykjavík affirmed its support for China's application for observer status at the Arctic Council.²³¹ Although the China-Iceland FTA built on a previous bilateral investment treaty, the FTA affirmed that it sought to help the parties establish "an attractive and stable reciprocal investment climate."²³² Also on the same day as these announcements, Iceland announced the establishment of the Arctic Circle Assembly, an organization that has provided Beijing with an additional and inclusive platform to address Arctic affairs.

PRC investment and Arctic Indigenous peoples

The Arctic is home to 4 million inhabitants, 500,000 of which are Indigenous peoples. Arctic Indigenous peoples include the Saami in Finland, Sweden, Norway, and Northwest Russia; the Nenets, Khanty, Evenk, and Chukchi in Russia; the Aleut, Yupik, and Inuit (Iñupiat) in Alaska; the Inuit (Inuvialuit) in Canada; and the Inuit (Kalaallit) in Greenland.²³³ Indigenous peoples have a voice in Arctic governance. Six Arctic Indigenous organizations hold Permanent Participant status in the Arctic Council: the Aleut International Association, Arctic Athabaskan Council, Gwich'in International Council, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North, and the Saami Council. Together, they comprise the Indigenous People's Secretariat.²³⁴



In recent years, there has been concern that China will seek to exploit Arctic Indigenous groups in order to further its interest in the Arctic. These concerns have largely centered on Greenland, given its large Indigenous population. For several years, PRC investment and Beijing's promise to "respect the traditions and cultures of Arctic residents, including Indigenous peoples" appeared to resonate with the predominantly Inuit population of the world's largest island.²³⁵ In 2018, for instance, Greenland courted PRC-based investors and construction firms to help expand three airports. This prompted concerns within the Danish government (Greenland is a self-ruling part of the Kingdom of Denmark) that PRC involvement in Greenland could worry its ally, the US.²³⁶ Thule Air Base, located in northwestern Greenland, is home to a key part of the US ballistic missile early-warning system.²³⁷

Recent events in Greenland, however, suggest that money alone is insufficient to win Beijing influence among Arctic Indigenous groups. In April 2021, when China's Shenghe Resources Holding Co. and an Australian company were on the cusp of developing a rare earth metals mine on Greenland's southern coast, the Greenland government called a snap election amid mounting controversy over the project's effects on the environment. Greenland's left-wing pro-environment party, Inuit Ataqatigiit, emerged victorious, leaving the fate of the PRC-backed project uncertain at the time of writing.²³⁸

4.2.4 Build new and cultivate existing partnerships

Beijing appears to use FDI and other economic tools to build and expand partnerships with Arctic states that are critical to its efforts to advance its interests in the region. Because PRC investment can benefit Arctic state recipients, it has the potential to demonstrate the kind of “win-win cooperation” that China touts.²³⁹ Further, by benefiting Arctic states, FDI can help China win friends among Arctic states that may be willing to accommodate China’s interests in Arctic affairs or advocate on Beijing’s behalf. If China is going to acquire more influence or authority in the region, it is the Arctic states that will have to accede to it.

Since Russia’s relationship with the West deteriorated in 2014, Beijing appears to have used FDI to build closer Sino-Russian ties. The sanctions regime that Western countries imposed on Russia following Moscow’s 2014 invasion of Crimea deterred most potential foreign investors—except the PRC—from pursuing projects in the country. Most of the PRC’s largest investments in the Russian Arctic were made after the 2014 invasion, and in 2019 President Xi Jinping and President Vladimir V. Putin both affirmed that the bilateral relationship has reached “the highest level in our history.”²⁴⁰ Similarly, since China stepped in to help Iceland when the latter was particularly hard hit by the 2008–2009 global financial crisis, PRC FDI in the country has grown dramatically; as of 2017, it constituted nearly 6 percent of Iceland’s GDP.²⁴¹ Given China’s importance to Iceland’s economy, it is perhaps unsurprising that Reykjavík is considering joining China’s BRI—and, by extension, its Polar Silk Road—even in the face of high-level US political pressure to avoid doing so.²⁴²

Pushback by Arctic states

Arctic states have not uniformly welcomed PRC FDI. The record suggests that, despite the financial benefits accompanying PRC FDI, a number of Arctic states are nonetheless reluctant to facilitate a larger PRC presence in the far north. Indeed, some proposed PRC investments have raised geopolitical or national security concerns in the recipient states. One of the most well-known cases occurred in 2011, when PRC national Huang Nubo, a billionaire businessman and former CCP propaganda department official, sought to purchase a piece of land in Grimsstadir, Iceland, to construct a golf course.²⁴³ The prospect of building a golf course in an area where snow falls for up to eight months a year puzzled many observers, and there were concerns in Reykjavík about the strategic implications of the proposed investment. As Iceland’s interior minister remarked, “One has to look at this from a geopolitical perspective and ask about motivations.”²⁴⁴ The Icelandic government eventually blocked the transaction.²⁴⁵ A number of subsequent PRC FDI proposals—especially those related to sensitive infrastructure—have also encountered opposition:

- In 2016, Danish authorities rejected an offer by the General Nice Group to purchase an abandoned naval base in Greenland.

- In 2018, Finland declined an offer by the PRC to purchase or lease an airfield near a large military training facility.²⁴⁶
- More recently, proposed PRC investments in traditionally less sensitive projects have been rejected on national security grounds. In 2020, for example, Canadian authorities blocked a PRC state-owned firm from purchasing a gold mine in the Canadian Arctic “for the purpose of safeguarding national security.”²⁴⁷

5. Conclusions and Implications

Constraints on China's success in the Arctic

Despite China's wide-ranging efforts to achieve its objectives in the Arctic, its success to date has been limited by a variety of constraints and challenges, including the following:

- **Geography.** China is a non-Arctic state. Despite its efforts to present itself as a “near-Arctic state,” China does not have territory in or near the Arctic, and it therefore depends on the states in the region to allow it access to pursue its interests there.
- **Pushback from Arctic states due to security concerns and domestic political considerations.** Several Arctic states—including Finland, Denmark, and Canada—have blocked PRC investment in the Arctic because of security concerns. In Sweden, there has been pushback against China's ground satellite station in Kiruna because of its potential military applications. PRC efforts to cooperate with Russia on the development of a Polar Silk Road have met with domestic political opposition among Russian officials, who chafe at the idea of subordinating the NSR to a PRC initiative.²⁴⁸
- **Beijing's counterproductive use of economic coercion.** Beijing's use of economic coercion against Norway, Sweden, and Canada and PRC diplomats' threats against countries that refuse to accept Huawei's presence severely undermine China's efforts to promote a positive image of China's role in the Arctic.
- **Need for profitability.** Despite Beijing's significant influence over their operations, PRC-based firms are still commercial enterprises looking to turn a profit. Some firms have voiced concerns about the profitability of Arctic ventures. For instance, PRC-based shippers have noted that Arctic routes are not suitable for container shipping because variable ice conditions make exact time estimates impossible. The cost of Arctic shipping routes is also a factor—navigating the NSR requires hiring Russian escort vessels and paying a fee.²⁴⁹
- **Stalled projects and continued lack of port access.** A number of PRC investment projects in the Arctic appear to have stalled or failed to progress beyond the signing of an agreement. Key among these are China's efforts to develop a port in Arkhangelsk. Despite its efforts, China continues to lack access to Arctic ports.

Conclusions and implications

This study identified the following conclusions and implications for Arctic states, including the US and its partners and allies in the region:

Expect China to continue to use multiple elements of state power to advance its interests in the Arctic. Beijing has made it clear in recent years that it sees the Arctic as critical to achieving its overarching strategic objectives of “national rejuvenation,” “building a strong China,” and revising the international order to align more closely with its interests. Moreover, it has publicly articulated its policy objectives in the region and invested heavily in efforts to achieve them. To date, Beijing’s efforts to pursue its policy objectives in the Arctic have relied on the diplomatic, economic, and informational elements of state power. The US and its partners and allies can therefore expect to see a continued PRC economic, diplomatic, and scientific presence in the region.

The PLA is developing the capabilities and concepts that would allow it to operate in the Arctic in the near future. To date, the PLAN has publicly operated near the Arctic on only a couple of occasions. However, China is building capacity, prepositioning capabilities, and developing familiarity with the operating environment that could enable future PLA operations in the region. Moreover, there is evidence that PLA strategic thinkers are already considering how to operate in the Arctic. In their writings, they emphasize the importance of “closely combining military and civilian forces” and using the PLA to “support polar scientific observation and other operations” as well as to conduct rescue operations in the polar regions. The US and its partners and allies should therefore watch for PLA participation in PRC scientific missions and search-and-rescue operations, which would indicate that the PLA is taking on a more active role in China’s Arctic activities.

The PRC party-state exerts control over both state-owned and private PRC-based companies to ensure that their investments in Arctic countries further Beijing’s interests. The PRC party-state’s recent efforts to tighten control over the overseas investments of PRC-based companies aims to ensure that their activities align with Beijing’s interests. In the Arctic, this means that PRC-based firms are likely to invest in projects that secure access to natural resources and develop the infrastructure necessary to make Arctic shipping routes commercially viable. The US and its partners and allies can therefore reasonably assume that PRC investment activities align with Beijing’s strategic objectives.

Conversely, PRC-based companies are unlikely to invest in sectors that Beijing sees as failing to serve its strategic interests. Due to recent party-state regulations on the overseas investment activities of PRC-based firms, we are unlikely to see PRC investment in sectors such as real estate, hotels, entertainment, or sports. The same regulations also forbid PRC-based

companies from pursuing investments that do not meet a target country's environmental, energy efficiency, or safety standards.

FDI appears to be an important targeted tool that PRC-based entities use to secure rights to the Arctic's natural resources and develop the infrastructure to support Arctic shipping routes. PRC-based companies have also undertaken a number of contracts to construct various infrastructure projects in the region, helping China to establish a physical presence there. This suggests that PRC FDI and the activities of PRC-based construction firms in the Arctic warrant careful evaluation to determine whether they pose potential security risks to the US and its allies and partners in the region.

PRC projects are likely to continue to face pushback from Arctic states. Several Arctic states have blocked PRC projects due to security concerns and domestic political considerations that are unlikely to disappear anytime soon. Moreover, Beijing's use of economic coercion and "wolf warrior" diplomacy have undermined China's efforts to improve its image in the eyes of Arctic countries. This pushback is likely to continue to constrain PRC efforts to gain a foothold in the Arctic. How Beijing seeks to address this challenge is an issue that warrants careful monitoring.

Appendix A: China's Ambition of Building a "Polar Silk Road"

In January 2018, the State Council Information Office officially proposed the Polar Silk Road²⁵⁰ in its Arctic white paper, stressing that the melting of the Arctic ice due to climate change has presented new opportunities for the development and use of Arctic resources and passages. The white paper notes that China's participation in Arctic affairs dates back to 1925, when the country became a signatory of the Spitsbergen Treaty (Svalbard Treaty). Since then, PRC activities in the Arctic have steadily expanded to include numerous scientific expeditions, polar research stations, and participation in multinational organizations engaged in Arctic affairs. The white paper describes China as an important member of the international community that plays an active role in the Arctic, arguing that collaborative construction of the Belt and Road Initiative (BRI) and Polar Silk Road alongside other parties will "provide opportunities to cooperate in promoting interconnectedness and sustainable economic and societal development in the Arctic region."²⁵¹

Roughly seven months before this announcement, the PRC NDRC and State Oceanic Administration laid out their vision for expanding the BRI to include a "blue economic passage through the Arctic connecting to Europe." Like the white paper, "Visions for Maritime Cooperation in Belt and Road Construction" advocates for China's active participation in the development and use of the Arctic, including working with other countries to study the effects of climate change. Among its other suggestions, the document calls for China to support improvements to Arctic shipping conditions and to encourage PRC-based companies to participate in the commercial use of Arctic passages and the sustained development of Arctic resources.²⁵²

China's Arctic white paper specifically states that a warming climate will "cause Arctic passages to hopefully become important shipping lines for international trade," and encourages PRC-based businesses to be involved in the development of those lines.²⁵³ China's official Xinhua News Agency reports that the PRC places a high level of value on the opening and use of Arctic passages, and that the Northeast Passage that links the Pacific and Atlantic Oceans can "significantly decrease" the shipping distance between China and Europe. Transiting the Arctic can decrease the distance from Shanghai to Hamburg by 2,700 nautical miles, versus the traditional route through the Suez Canal. It would decrease the distance traveled between Shanghai and Murmansk in northwestern Russia by 40 percent, cutting transit time by nearly 16 days and significantly reducing fuel use and emissions.²⁵⁴

Because of its strategic partnership with China and its location along the Arctic region, Russia has become a major partner in China's Polar Silk Road efforts. On the same day the Arctic white paper was released, then deputy minister of foreign affairs Kong Xuanyou highlighted the importance of the Polar Silk Road in China-Russia Arctic cooperation, describing it as "one of the important endeavors" in their efforts to jointly develop and use Arctic shipping routes.²⁵⁵ Just months before the release of the white paper, Xi Jinping held a meeting with then Russian prime minister Dmitry Medvedev in which he discussed cooperation in jointly developing and using Arctic passages and building the Polar Silk Road, highlighting Russia's significant role in the effort.²⁵⁶ Of note, there is evidence that at least some Russian MFA officials are not comfortable with the term *Polar Silk Road* because it subordinates Russian efforts to develop the NSR to a PRC initiative.²⁵⁷

Appendix B: Key PRC Government Organizations

Chinese Arctic and Antarctic Administration



The Chinese Arctic and Antarctic Administration (CAA) (国家海洋局极地考察办

公室) is a research institution that originally focused on Antarctic issues, but it expanded its area of focus in 1996 to include the Arctic. The CAA was originally subordinate to the State Oceanic Administration, but it became part of the newly created Ministry of Natural Resources during a major bureaucratic restructuring led by the PRC State Council in 2018. Among its many responsibilities, the CAA organizes and drafts strategies and policies for China's polar work, coordinates the work of polar observation teams, and manages polar observation training bases and overseas institutions.²⁵⁸

Aside from its involvement in China's polar research expeditions, the CAA also actively participates in China's overseas efforts to cooperate with other countries involved in the Arctic. In 2017, during the 40th Antarctic Treaty Consultative Meeting, the CAA signed a series of bilateral memoranda of understanding with research institutions from six countries that are active in Arctic research, including the US, Russia, and Norway. The memoranda incorporated a range of cooperative activities, including "site investigation, scientific research, logistical support, environmental protection and management, staff exchanges and policy planning."²⁵⁹

Chinese Academy of Sciences



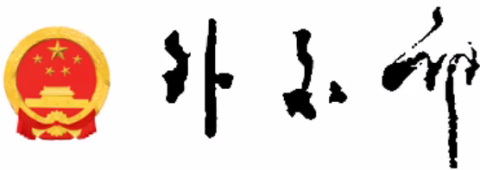
The Chinese Academy of Sciences (CAS) (中国科学院), established in 1949, describes itself as China's highest academic institution in the

natural sciences, its highest consultative institution in science and technology, and a center for research and development in the natural sciences and high technologies. According to the academy's website, since China's economic reforms, CAS has taken the lead in opening the door to science and technology cooperation with Western countries and has served to advance PRC national interests, including by helping to develop its economy. CAS also asserts that in solving

major issues related to China's long-term development, it is vital to the country's development of cutting-edge science and technology.²⁶⁰

Members of CAS actively participate in collaborative science and technology projects with Arctic states. In April 2018, CAS's deputy director of the Institute of Remote Sensing and Digital Earth signed an agreement with the director of the Finnish Meteorological Institute's Space and Earth Observation Center "to establish a joint research center for Arctic space observation and data sharing services." The Center will use satellites to contribute to climate research and environmental monitoring and to provide data for Arctic Ocean navigation. China has also established a similar arrangement in Sweden: the China Remote Sensing Satellite North Polar Ground Station, which the deputy director says "increased the transmission efficiency of satellite data, and improved China's capability to access remote sensing data in the Arctic region."²⁶¹

Ministry of Foreign Affairs



The Ministry of Foreign Affairs (MFA) (外交部) is responsible for carrying out China's foreign policies and relevant laws; protecting the country's sovereignty, security, and interests on behalf of the PRC state; and providing advice to the Party Central Committee and State Council on the formulation of China's diplomatic strategies and policies. The ministry is also in charge of concluding China's bilateral and multilateral treaties, leading or participating in the formulation of maritime boundary policies, and negotiating maritime demarcation and joint development issues.²⁶²

The MFA's special representative for Arctic affairs, Gao Feng, frequently China's Arctic interests in high-level international dialogues on Arctic issues. Aside from attending trilateral meetings with South Korea and Japan to discuss challenges and cooperation in the Arctic, Gao has also acted as the PRC's representative at the Arctic Circle Assembly. At the 2019 meeting, Gao gave a speech titled "Asia and the Arctic Are Inseparable and Reinforce Each Other," and introduced the PRC's Arctic policies to the other participants.²⁶³ Most recently, Gao cohosted a dialogue on Arctic issues alongside his Russian counterpart. The two representatives discussed issues including the current Arctic situation, the Arctic Council, and pragmatic Arctic cooperation between the two countries.²⁶⁴

Ministry of Industry and Information Technology



中华人民共和国工业和信息化部

Ministry of Industry and Information Technology of the People's Republic of China

The Ministry of Industry and Information Technology (MIIT) (工业和信息化部) was

established in 2008 to manage China's "industrial branches and information industry."²⁶⁵ The ministry describes one of its major functions as supervising four major PRC government entities, including MIIT itself; the State Administration for Science, Technology and Industry for National Defense; China Tobacco; and the China Academy of Engineering Physics.²⁶⁶ Among its many responsibilities, MIIT is involved in China's industrial planning, protects China's information security, and promotes "the development of major technological equipment and innovation concerning the communication sector."²⁶⁷

As one of its additional roles, MIIT meets with representatives from foreign countries to discuss specific cooperative projects. For example, in mid-2017, then minister of MIIT Miao Wei met with the Finnish minister of transport and communications at a BRI forum to discuss areas of cooperation, including an Arctic submarine cable project.²⁶⁸ The ministry also appears to have played an important role in a mobile drilling project between a China International Marine Containers affiliate and Krylov State Research Centre, Russia's largest ship and maritime equipment research institute. In a press release about the project, MIIT describes the agreement as a significant task of a meeting between China's minister of MIIT and the head of Russia's Ministry of Industry and Trade.²⁶⁹

Ministry of Natural Resources



中华人民共和国自然资源部

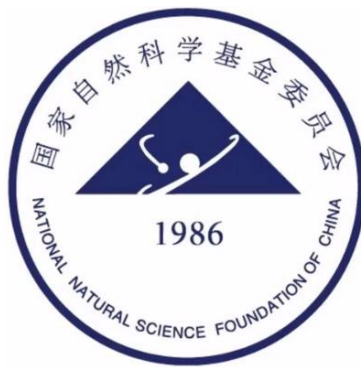
Ministry of Natural Resources of the People's Republic of China

The Ministry of Natural Resources (MNR) (自然资源部) was established during a

major bureaucratic restructuring led by the PRC State Council in 2018. The MNR was created to integrate the responsibilities of a large number of existing PRC government organizations under one ministry. This move dismantled the Ministry of Land and Resources, State Oceanic Administration, and National Administration of Surveying, Mapping, and Geoinformation.²⁷⁰ The MNR is responsible for exercising ownership over the country's lands, minerals, and waters; controlling land use; drafting regulations relating to natural resources and national lands; and handling the surveying, monitoring, and evaluation of the country's natural resources.²⁷¹

The ministry takes part in China's Arctic affairs in multiple ways. As the ministry that oversees the Polar Research Institute of China (PRIC), the MNR plays a role in the organization and planning of the country's Arctic expeditions.²⁷² The MNR also hosts forums and attends meetings with Arctic countries alongside PRC delegations. In May 2019, the MNR hosted a forum on China in the Arctic in Shanghai with the Arctic Circle organization. The forum focused on the Polar Silk Road, transportation and investment, and sustainable development. Ambassadors, diplomats, scholars, entrepreneurs, and Indigenous people from Iceland, the US, Canada, Norway, Japan, India, and other Arctic and non-Arctic states attended.²⁷³ In October of that same year, a delegation from the MNR also attended the 7th Arctic Circle Assembly in Iceland and, along with the Chinese Embassy in Iceland, helped to organize a panel on China's Arctic research expeditions.²⁷⁴

National Natural Science Foundation of China



The National Natural Science Foundation of China (NSFC) (国家自然科学基金委员会) was established in 1986 after 89 scholars from the CAS recommended to the Party Central Committee and State Council that China establish a nationally oriented natural sciences fund.²⁷⁵ The foundation manages China's natural science fund under the direction of the Ministry of Science and Technology. According to its website, the NSFC's primary functions encompass a broad range of activities in support of China's natural sciences research, including providing funding; formulating guidelines, policies, and development plans; and cooperating with foreign governments and organizations.²⁷⁶

The annual budget for the NSFC has significantly increased from its initial 80 million RMB in 1986. In 2019, the NSFC's annual budget reached more than 31 billion RMB. In 2018, the foundation provided 44,504 awards to more than 1,500 research institutions.²⁷⁷ Although the NSFC provides funding for a broad range of scientific research, some of its funding is allocated to Arctic research topics. The NSFC's development plan lists priority research areas for 2016–2020, including “new mechanisms and methods for polar navigation.”²⁷⁸

Polar Research Institute of China



The Polar Research Institute of China (PRIC) (中国极地研究中心) is a PRC research institute that is directly subordinate to the MNR. Since its establishment in 1989, the PRIC has engaged in a wide range of polar research activities and constructed numerous laboratories to study and monitor scientific issues at the poles. The PRIC is responsible for operating and managing the MV *Xue Long* and MV *Xue Long 2* icebreakers and the PRC's Arctic research stations. The PRIC also acts as the PRC's polar

sciences information center; it is responsible for the country's polar science databases, information networks, and sample libraries.²⁷⁹

The PRIC also engages in research cooperation with Arctic countries and is responsible for initiating the creation of the China-Nordic Arctic Research Center (CNARC) in 2013. The research center was originally founded by a group of 10 PRC-based and Nordic research institutes that “have capacities to influence and coordinate Arctic research.”²⁸⁰ Among its many cooperative Arctic activities, CNARC assists in the sharing of Arctic-related information between China and the other member countries and promotes research collaboration for students at its member institutions.²⁸¹ The PRC expressed its support for the CNARC in its 2018 Arctic white paper, specifically for its role in “promoting exchange and cooperation among stakeholders.”²⁸²

Polar Science and Technology Committee

The Polar Science and Technology Committee (中国极地科学技术委员会) was established in 2017 by the State Oceanic Administration to promote the development of China's polar science and technology. The committee was originally made up of a group of 41 experts and directed by the former minister of science and technology Xu Guanghua. When the committee was established, then director of the State Oceanic Administration Wang Hong stated that the polar sciences are expanding and becoming increasingly competitive, and that China's polar scientific research would more closely serve Beijing's major national strategies. According to Wang, some of the committee's responsibilities include providing consultation on polar science, strategy, and major projects and guiding the direction of major science and technology development in the area of polar research. Wang further stated that the establishment of the committee would contribute to “the construction of [China as] a maritime power and the Belt and Road Initiative.”²⁸³

Silk Road Fund

The Silk Road Fund (SRF) (丝路基金) is a state-backed investment fund established in 2014 with a focus on providing financial support for trade cooperation and interconnectedness under the framework of the BRI. The fund engages in medium- and long-term investments, primarily using the acquisition of shares as a means to invest in basic infrastructure, resource development, production capacity cooperation, and financial cooperation in BRI countries. Capital contributions for SRF investment projects come from the four PRC entities that invested in the fund's creation—the State Administration of Foreign Exchange (65 percent), China Investment Corporation (15 percent), Exim Bank of China (15 percent), and the China Development Bank (5 percent).²⁸⁴



In December 2015, the SRF signed a series of agreements with the Russian natural gas producer Novatek to finance the Yamal LNG, described as the world's largest LNG exploration and development project. These agreements included an SRF share acquisition in the project and a 730 million Euro loan to finance the effort.²⁸⁵ The two parties completed the transaction in March 2016, allowing the SRF to acquire a 9.9 percent share in the project.²⁸⁶ Other investors in the Yamal LNG include China National Petroleum Corporation (20 percent) and the French oil and gas company Total (20 percent).²⁸⁷ The SRF is also involved in another major partnership in the Arctic, along with Novatek, the PRC's COSCO Shipping, and the Russian shipping company Sovcomflot. In June 2019, shortly after the presidents of the PRC and Russia signed an agreement on bilateral Arctic cooperation, the four companies agreed to form the Maritime Arctic Transport LLC, a joint venture that aims to establish a global commercial shipping corridor through the Arctic. According to a COSCO press release, the joint venture is an implementation of the agreement between the two countries' presidents and is important for the construction of the Polar Silk Road.²⁸⁸

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Abbreviations

AEC	Arctic Economic Council
BRI	Belt and Road Initiative
CAA	Chinese Arctic and Antarctic Administration
CAO Agreement	Central Arctic Ocean Agreement
CAS	Chinese Academy of Sciences
CCCC	China Communications Construction Company
CCP	Chinese Communist Party
CNARC	Chinese Nordic Arctic Research Center
CNOOC	China National Offshore Oil Corporation
CNPC	China National Petroleum Corporation
COSCO	China Ocean Shipping Company
CPPCC	Chinese People's Political Consultative Congress
EPC	engineering, procurement, and construction
FDI	foreign direct investment
FTA	free trade agreement
IASC	International Arctic Science Committee
IMUMR	Institute of Multipurpose Utilization of Mineral Resources
LNG	liquefied natural gas
MFA	Ministry of Foreign Affairs
MIIT	Ministry of Industry and Information Technology
MNR	Ministry of Natural Resources
NDRC	National Development and Reform Commission
NPC	National People's Congress
NPCGF	North Pacific Coast Guard Forum
NSFC	National Natural Science Foundation of China
NSR	Northern Sea Route
PAG	Pacific Arctic Group
PBOC	People's Bank of China
PLA	People's Liberation Army
PLAN	People's Liberation Army Navy
PRC	People's Republic of China
PRIC	Polar Research Institute of China
PSC	production-sharing contract
SASAC	State-Owned Assets Supervision and Administration Commission
SHI	Samsung Heavy Industries

SOE	state-owned enterprise
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea

Notes

¹ See, Joshua Tallis, Mark Rosen, and Cornell Overfield, *Arctic Economic Security: Recommendations for Safeguarding Arctic Nations against China's Economic Statecraft*, www.cna.org/ArcticFDI.

² *National Defense Authorization Act for Fiscal Year 2020*, 2019. § 1260E(b)(2)

³ The other three CNA papers assess the scale of PRC Arctic investment, assess the regulatory environment for Arctic FDI, and provide recommendations for US policy-makers. All reports for this project can be found at www.cna.org/ArcticFDI. The summary report and recommendations document by Joshua Tallis, Mark Rosen, and Cornell Overfield is *Arctic Economic Security: Recommendations for Safeguarding Arctic Nations against PRC Economic Statecraft*. See, Joshua Tallis, Mark Rosen, and Cornell Overfield, *Arctic Economic Security*, www.cna.org/ArcticFDI. For more on PRC economic statecraft, readers can visit: www.cna.org/centers/cna/cip/economic-statecraft.

⁴ See, for example: "Xi Pledges 'Great Renewal of Chinese Nation'," National Museum of China, Nov. 29, 2012, <http://en.chinamuseum.cn/Default.aspx?TabId=521&InfoID=86595&frtid=500&AspxAutoDetectCookieSupport=1>.

⁵ "Full Text of Xi Jinping's Report at 19th CPC National Congress," Xinhua, Nov. 3, 2017, http://www.xinhuanet.com/english/special/2017-11/03/c_136725942.htm.

⁶ Ibid.

⁷ In his speech to the 19th National Congress, Xi Jinping stated, "Without the leadership of the Communist Party of China, national rejuvenation would just be wishful thinking." He asserted that the realization of the China Dream requires all CCP members to "uphold Party leadership of the Chinese socialist system, and resolutely oppose all statements and actions that undermine, distort, or negate them." "Full Text of Xi Jinping's Report at 19th CPC National Congress," Xinhua, Nov. 3, 2017, http://www.xinhuanet.com/english/special/2017-11/03/c_136725942.htm.

⁸ Recognizing the critical role that continued economic growth plays in ensuring China's domestic stability and great power aspirations, Xi has emphasized that to "realize the China Dream of national rejuvenation, and steadily improve our people's lives, we must continue to pursue development as the Party's top priority in governance." "Full Text of Xi Jinping's Report at 19th CPC National Congress," Xinhua, Nov. 3, 2017, http://www.xinhuanet.com/english/special/2017-11/03/c_136725942.htm.

⁹ Xi has also highlighted the importance of national sovereignty and social stability to the China Dream, stating, "We must do more to safeguard China's sovereignty, security, and development interests, and staunchly oppose all attempts to split China or undermine its ethnic unity and social harmony and stability." "Full Text of Xi Jinping's Report at 19th CPC National Congress," Xinhua, Nov. 3, 2017, http://www.xinhuanet.com/english/special/2017-11/03/c_136725942.htm.

¹⁰ Qu Xing (曲星), The Foundational System of Values for the Community with a Shared Future for Mankind (*Renlei Mingyun Gongtongti De Jiazhi Guan Jichu*; 人类命运共同体的价值观基础), *Qiushi* (求是), Feb. 7, 2013, http://www.qstheory.cn/zxdk/2013/201304/101302/t20130207_201895.htm.

¹¹ For instance, Xi Jinping advocated the concept during a speech at the United Nations General Assembly in 2017. Xi Jinping, "Work Together to Build a Community of Shared Future for Mankind," Xinhua, Jan. 19, 2017, http://www.xinhuanet.com/english/2017-01/19/c_135994707.htm. Similarly, the PRC's 2019 defense white paper calls on the PRC's armed forces to "actively contribute to building a Shared Future for Mankind." *China's National Defense in the New Era*, State Council Information Office of the People's Republic of China, July 2019.

¹² Fu Ying, “China’s Vision for the World: A Community of Shared Future,” *Diplomat*, June 22, 2017, <https://thediplomat.com/2017/06/chinas-vision-for-the-world-a-community-of-shared-future/>.

¹³ Ibid.; Yang Jiechi, “Working for a Community with a Shared Future for Mankind by Promoting International Cooperation and Multilateralism,” Foreign Ministry of the People’s Republic of China, Feb. 17, 2019, fmprc.gov.cn/mfa_eng/zxxx_662805/t1638512.shtml; Xi Jinping, “Work Together to Build a Community of Shared Future for Mankind,” Xinhua, Jan. 19, 2017, http://www.xinhuanet.com/english/2017-01/19/c_135994707.htm.

¹⁴ Yang Jiechi, “Working for a Community with a Shared Future for Mankind by Promoting International Cooperation and Multilateralism,” Foreign Ministry of the People’s Republic of China, Feb. 17, 2019, fmprc.gov.cn/mfa_eng/zxxx_662805/t1638512.shtml; Xi Jinping, “Work Together to Build a Community of Shared Future for Mankind,” Xinhua, Jan. 19, 2017, http://www.xinhuanet.com/english/2017-01/19/c_135994707.htm.

¹⁵ “Commentary: Xi Demonstrates China’s Role as Responsible Country in New Year Address,” Xinhua, Jan. 1, 2018, http://www.xinhuanet.com/english/2018-01/01/c_136865307.htm.

¹⁶ Ibid. and “Forge Ahead Under the Guidance of General Secretary Xi Jinping’s Thought on Diplomacy,” Ministry of Foreign Affairs of the People’s Republic of China, Jan. 9, 2017, https://www.fmprc.gov.cn/mfa_eng/wjb_663304/wjbz_663308/2461_663310/t1489143.shtml.

¹⁷ For instance, recent editions of *Science of Military Strategy*, a volume published by the Chinese Academy of Military Sciences, devote an entire section to polar issues. Although not an official statement of military strategy or operational doctrine, *Science of Military Strategy* conveys the views of strategists at the PRC military’s premier institution for the study and development of strategy, operations, and tactics. *The Science of Military Strategy (Zhanlue xue; 战略学)* (Beijing: Military Science Press (*Junshi kexue chubanshe; 军事科学出版社*)), 2015, 2017, and 2020. For more about the volume, see: M. Taylor Fravel, “China’s Changing Approach to Military Strategy: The Science of Military Strategy from 2001 and 2013,” (SSRN, May 4, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2774761.

¹⁸ *China’s Arctic Policy*, State Council Information Office of the People’s Republic of China, 2018 http://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.

¹⁹ “Observers,” Arctic Council, <https://arctic-council.org/en/about/observers/#:~:text=As%20set%20out%20in%20the,non%2Dgovernmental%20organizations%20that%20the>, accessed Apr. 12, 2021; *The Science of Military Strategy (Zhanlue xue; 战略学)* (Beijing: Military Science Press (*Junshi kexue chubanshe; 军事科学出版社*), 2020), 162-166.

²⁰ *The Science of Military Strategy (Zhanlue xue; 战略学)* (Beijing: Military Science Press (*Junshi kexue chubanshe; 军事科学出版社*), 2020), 162-166.

²¹ Lan Shunzheng, “How the US Is Increasingly Attempting to Gain an Advantage in the Arctic,” CGTN, Sept. 17, 2020, <https://news.cgtn.com/news/2020-09-17/How-the-U-S-is-attempting-to-gain-an-advantage-in-the-Arctic-TR018HJkTm/index.html>.

²² See, for example: Jing Shuiyu, Zhong Nan, and Ren Xiaojin, “External Headwinds Fail to Stymie Tech Progress,” *China Daily*, Aug. 15, 2018, <http://www.chinadaily.com.cn/a/201808/15/WS5b736dc0a310add14f385c67.html>.

²³ For instance, Li Zhixin, a professor at the PLA’s National Defense University, observed that “a (nuclear) missile launched from the Arctic Ocean can almost reach any place on the North Hemisphere, thus creating a very strong military deterrence.” Li Zhixin is from the College of Politics of the National Defense University of the PLA. His article was originally published in *China Youth Daily* and then translated from Chinese into English and edited by China Military Online, which is the English-language publication of *People’s Liberation Army Daily*. Li Zhixin, “The Arctic Sees Escalating Militarization,” China Military Online, Dec. 7, 2018, http://eng.chinamil.com.cn/view/2018-12/07/content_9372164.htm.

²⁴ *The Science of Military Strategy (Zhanlue xue; 战略学)* (Beijing: Military Science Press (*Junshi kexue chubanshe; 军事科学出版社*), 2020), 162-166.

²⁵ Ibid.

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- ²⁵ Li Zhixin, "The Arctic Sees Escalating Militarization," China Military Online, Dec. 7, 2018, http://eng.chinamil.com.cn/view/2018-12/07/content_9372164.htm.
- ²⁶ *The Science of Military Strategy* (Zhanlue xue; 战略学), 162-166.
- ²⁷ *China's Arctic Policy*.
- ²⁷ "Observers," Arctic Council.
- ²⁸ Of note, the PRC government has since appeared to downplay this speech, and an official English-language translation is not publicly available. "Second Essay on the In-Depth Study and Implementation of the Spirit of Chairman Xi Jinping's Important Speech (*Er lun shenru xuexi guanchc Xi Jinping zhuxi zhongyao jianghua jingshen*; 二论深入学习贯彻习近平主席重要讲话精神)," *China Ocean News* (*Zhongguo Haiyang Bao*; 中国海洋报), Nov. 25, 2014, <https://web.archive.org/web/20191213230323/http://www.oceanol.com/redian/shiping/2014-11-25/38013.html>.
- ²⁹ *China's Arctic Policy*.
- ³⁰ Wei Zexun, et al. "Overview of the 9th Chinese National Arctic Research Expedition," *Atmospheric and Oceanic Science Letters*, Volume 13, 2020: Issue 1, p. 1-7, <https://www.tandfonline.com/doi/full/10.1080/16742834.2020.1675137>.
- ³¹ "Observers," Arctic Council.
- ³² Indeed, China's Arctic white paper devotes an entire section to this objective. *China's Arctic Policy*.
- ³³ *China's Arctic Policy*.
- ³⁴ For example, at a 2019 meeting of the Arctic Circle Assembly forum, State Oceanic Administration Chief Wang Hong proposed conducting joint scientific expeditions to the North Pole and sharing the observation data with other countries to "promote the monitoring and assessment of climate and environmental change in the Arctic." "China to Contribute to Sustainable Development of Arctic," Xinhua, May 10, 2019, http://www.xinhuanet.com/english/2019-05/10/c_138049111.htm.
- ³⁵ For an overview of this issue, see: Lindsay Maizland, "Backgrounder: China's Fight Against Climate Change and Environmental Degradation," Council on Foreign Relations, May 19, 2021, <https://www.cfr.org/backgrounder/china-climate-change-policies-environmental-degradation>.
- ³⁶ Beijing is careful to describe the type of development of Arctic resources that it seeks to pursue as "sustainable." References to sustainable development appear 10 times in the 13-page white paper.
- ³⁷ Anne-Marie Brady, *China as a Polar Great Power* (Cambridge: Cambridge University Press, 2017), 91; Lan Shunzheng, "How the US Is Increasingly Attempting to Gain an Advantage in the Arctic," CGTN, Sept. 17, 2020, <https://news.cgtn.com/news/2020-09-17/How-the-U-S-is-attempting-to-gain-an-advantage-in-the-Arctic-TR018HJkTm/index.html>; Kenneth J. Bird et al., "Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle," US Geological Survey, US Geological Survey Fact Sheet 2008-3049, <https://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf>.
- ³⁸ *China's Arctic Policy*. The Arctic white paper states that the "development of the resources in the Arctic may have a huge impact on the energy strategy and economic development of China." *China's Arctic Policy*.
- ³⁹ "Country Analysis Executive Summary: China," US Energy Information Administration, Sept. 20, 2020, https://www.eia.gov/international/content/analysis/countries_long/China/china.pdf; "China's Crude Oil Imports Surpassed 10 Million Barrels per Day in 2019," US Energy Information Administration, Mar. 23, 2020, <https://www.eia.gov/todayinenergy/detail.php?id=43216>.
- ⁴⁰ *China's Arctic Policy*.
- ⁴¹ PRC-based scholars have taken note of this. For instance, Zhu Feng, the Executive Director of the China Center for Collaborative Studies of the South China Sea at Nanjing University, told China's official English-language newspaper *China Daily* that "China has high stakes in Arctic affairs, as the shipping channels emerging due to melting ice in the Arctic may dramatically cut shipping time and cost between the Atlantic and Pacific." Zhu Feng and Cheng Baozhi, "Global Governance Needed for Arctic Affairs," *China Daily*, May 10, 2019, http://www.chinadaily.com.cn/global/2019-05/10/content_37467376.htm.

⁴² “What Is the Northern Sea Route?” *Economist*, Sept. 24, 2018, <https://www.economist.com/the-economist-explains/2018/09/24/what-is-the-northern-sea-route>.

⁴³ Lan Shunzheng, “How the US Is Increasingly Attempting to Gain an Advantage in the Arctic,” CGTN, Sept. 17, 2020, <https://news.cgtn.com/news/2020-09-17/How-the-U-S-is-attempting-to-gain-an-advantage-in-the-Arctic-TR018HJkTm/index.html>.

⁴⁴ Thomas J. Bickford with Heidi A. Holz and Frederic Vellucci Jr., *Uncertain Waters: Thinking About China’s Emergence as a Maritime Power*, CNA, Sept. 2011, CRM D0025813.A1/Final.

⁴⁵ The 2018 white paper states, “To participate in the governance of the Arctic, China will participate in regulating and managing the affairs and activities relating to the Arctic on the basis of rules and mechanisms.” *China’s Arctic Policy*. PRC officials have reiterated this objective. For instance, both Vice Foreign Minister Kong Xuanyou and Vice Premier Wang Yang have stated China’s intent to “actively participate in Arctic governance.” Wang Lei, Liu Hui, “China Proposes Building ‘Polar Silk Road’ in Arctic,” CGTN, Jan. 26, 2018,

https://news.cgtn.com/news/31497a4e7a677a6333566d54/share_p.html; Chinese Vice Premier: China is Willing to Play a Bigger Role in Arctic Development,” CGTN, June 28, 2018, <https://news.cgtn.com/news/3d4d544f30497a4d/index.html>.

⁴⁶ “Second Essay on the In-Depth Study and Implementation of the Spirit of Chairman Xi Jinping’s Important Speech (*Er lun shenru xuexi guananchi Xi Jinping zhuxi zhongyao jianghua jingshen*; 二论深入学习贯彻习近平主席重要讲话精神)” *China Ocean News (Zhongguo Haiyang Bao; 中国海洋报)*, Nov. 25, 2014, <https://web.archive.org/web/20191213230323/http://www.oceanol.com/redian/shiping/2014-11-25/38013.html>.

⁴⁷ In the words of Xi Jinping himself, “Polar affairs have a unique role in our marine development strategy, and the process of becoming a polar power is an important component of China’s process to become a maritime great power.” “Second Essay on the In-Depth Study and Implementation of the Spirit of Chairman Xi Jinping’s Important Speech (*Er lun shenru xuexi guananchi Xi Jinping zhuxi zhongyao jianghua jingshen*; 二论深入学习贯彻习近平主席重要讲话精神).”

⁴⁸ *China’s Arctic Policy*.

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