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The Intricacy of China's Arctic Policy

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In January 2018, China published its first ever Arctic White Paper, detailing China's national interests, priorities, approaches, and policies toward the Arctic. The Arctic White Paper is a response to the culmination of China's growing interests and involvement in the Arctic and the corresponding speculations and concerns from other countries about the potential and ambitions of China's Arctic footprint. Despite the intention to clarify China's Arctic strategy, the very publication of the White Paper, along with the ambiguity and propaganda aspects of the document, has led to more interest and curiosity from foreign observers that China's Arctic ambition goes beyond what the White Paper has elaborated.

In many ways, the White Paper tells the world what it already knows about China's Arctic policy. China identifies common challenges in the Arctic such as global warming and climate change and asserts its role as a near-Arctic state and a key stakeholder in addressing such challenges. China keenly utilizes its science diplomacy, employing scientific and technological research as a legitimate entry into Arctic issues. China also has its eyes on the natural resources and shipping routes that the Arctic has to offer, citing China's economic strengths as a key factor anchoring its contribution to the development of the region. All of these are true. However, the document also reveals key problems in China's Arctic policy, the most evident of which is the constraining identity of China as a non-Arctic state. In this sense, China's approach to the Arctic, including its focus on the legality, necessity, and channels of its participation in Arctic affairs, is carefully crafted to maximize its depth and breadth.

China's Arctic policy falls victim to the same convoluted bureaucratic strictures and the challenges stemming from the proliferation of actors as the rising power's international interests and involvement expand. As it currently stands, there are more than fifteen government agencies/institutions involved in China's Arctic policy. Although an inter-agency Arctic Affairs Coordination Group was allegedly established by the State Council in 2011, there is yet to be a clear structure of the management and coordination of the diverse group of China's Arctic players. This is particularly true after the institutional restructuring of the State Council in 2018, during which the State Oceanic Administration responsible for China's polar affairs was eliminated. Also a part of the Chinese bureaucracy, state-owned enterprises from the energy, mining, and shipping industries are among the most enthusiastic commercial players in the Arctic. Not all commercial endeavors launched by Chinese players have been successful, although with the launch of the Polar Silk Road, China's commercial interests in the Arctic will grow substantially.

The Issue of China's Arctic Identity

The Arctic White Paper sets up a framework, detailing the parameters of China's activities in the Arctic. The foundation of this framework is establishing legal justification for China's involvement in the Arctic. China cites two legal documents to legitimize its role and activities in the Arctic. The first one is the Svalbard Treaty that China signed in 1925 at France's invitation.¹ Although the People's Republic of China did not "rediscover" its signatory status until the 1990s, the latecomer has been very effective in exploiting fully the rights that the Treaty offers.² The Treaty stipulates that all signatories enjoy equal, non-discriminatory rights to entry, fishing, mining, and trade as long as the activities abide by Norwegian laws. China has relied on this Treaty to pave the way for its science expeditions as well as the later establishment of its research station.

The second legal document that China cites is the 1982 U.N. Convention on the Law of the Sea (UNCLOS). Under the Convention, China sees itself as enjoying the right to innocent passage in the territorial waters of the Arctic states, the right to freedom of navigation in the Exclusive Economic Zones of the Arctic coastal states as well as the high seas, and also the right to fishing and seabed mining in specific regions in the Arctic (comprising the North Pole and its adjacent waters). In addition, China also sees its legitimate role in the Arctic region originating from China's joining of governing institutions, such as the International Arctic Sciences Committee and as a permanent observer of the Arctic Council. The seat at the table with these international organizations is argued by China to have established external and institutional legitimacy for an active role for China to play in Arctic affairs.

However, not all seats are created equal. A seat at the table does not guarantee China the same seat as Arctic states. China is not an Arctic state. China, instead, refers to itself as a "near-Arctic state."³ This definition reflects at minimum three layers of China's calculations. First for China, if the guiding principle is a dichotomy between Arctic and non-Arctic states, it inevitably puts China in an inferior and disadvantaged position because non-Arctic states by default could not compete with Arctic states on governance of the region. To this end, some Chinese scholars have argued that the dichotomy of Arctic and non-Arctic states the 1982 UNCLOS because it automatically puts non-Arctic states in an inferior position.⁴

Second, in the Chinese calculation, "near-Arctic state" differentiates China from the Arctic states, therefore offering some implicit recognition and reassurance that China is not aiming for the same status and rights as the Arctic states. At the same time, it has the benefit of differentiating China from the other non-Arctic states that are geographically located further away from the region, hence implying certain privilege associated with China's location. The problem of this identity lies in its ambiguity and lack of international legal backing. Indeed, "near-Arctic state" is not a legal term accepted by major international treaties or laws, such as the UNCLOS. Knowing the unpopularity of the term, Chinese scholars have

¹ Pei Jianrong and Zhang Jimin 裴剑容, 张继民. "Zhongguo kexuejia keyi ziyou churu— yinwei you le 'Siwa'erba tiaoyue'"中国科学家可以自由出入一因为有了"斯瓦尔巴条约 [China's scientists can freely come in and out— due to the Svalbard Treaty]. CCTV. Accessed July 26, 2018. http://www.cctv.com/lm/233/33/19617.html. ² Guang Mingwang 光明网. "Zhongguo gongmin ke ziyou churu Siwa'erba qundao, xu guigong Beiyang zhengfu"中 国公民可自由出入斯瓦尔巴群岛,须归公北洋政府 [Chinese citizens can freely enter and leave the Svalbard Archipelago thanks to the Beiyang government]. Shijie Lishi 世界历史, December 19, 2017. Accessed July 26, 2018. http://www.lishi520.com/lishizonghe/lishidili/61.html.

 ³ "China's Arctic Policy." The State Council of the People's Republic of China, January 26, 2018. Accessed July 26, 2018. http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.
⁴ Interview with expert, Beijing, June 2018.

attempted to legitimize the claim by citing other countries who share the "near-Arctic" identity to boost its claim, such as the U.K., Japan, and South Korea.⁵

The other term that has also been used to describe China's Arctic identity is "stakeholder." Stakeholder equalizes and generalizes among almost all countries in the world. However, it does not distinguish China from countries that have fewer interests or capacity to pursue such interests in the Arctic.

The identity problem is a fundamental obstacle to China's ambition in the Arctic. The Arctic White Paper names China as an integral player and a key stakeholder in the Arctic's affairs and identifies key Chinese national interests in the Arctic. However, China's exhaustive efforts to justify its activities in the Arctic also reveal a carefully calibrated approach made necessary by China's non-Arctic state identity. China understands that it is not an Arctic state and cannot claim the same rights as the Arctic states. Therefore, the best term that could maximize China's role – a "near-Arctic state" – reflects an unwilling recognition of the constraints to China's activities. This fact significantly limits China's ability to poach influence in the Arctic region. It also determines that China must rely on multilateral platforms and bilateral cooperation rather than a unilateral approach to pursue its interests in the Arctic.

This is a key caveat in evaluating China's ambition and approaches to the Arctic. China is indeed ambitious and will not neglect any opportunity to claim what could potentially and legitimately grant it entitlements or interests in the region. Given the opportunity, China will maximize its efforts to shape the discourse on the Arctic to expand its influence and interests. However, it should be pointed out that due to China's non-Arctic state status, many of China's interests must be pursued indirectly and cautiously.

China's Approach to the Arctic

China's approach to the Arctic is heavily anchored on the perceived disadvantages China suffers from its Arctic identity. Rather than making high-profile claims and moves on high political issues, China instead pursues a relatively low-key, indirect, and research-oriented approach. To counter China's disadvantaged status in Arctic affairs as a non-Arctic state, Chinese discourse prioritizes the Arctic as a global issue, therefore emphasizing multilateral global mechanisms such as the U.N. This tendency is particularly conspicuous in the White Paper given the prevalence of references to the U.N. Charter and UNCLOS in the management of Arctic affairs and global governance issues such as climate change. China's goal is to keep the Arctic as an open region rather than a closed one. Understanding the sovereignty and rights of the Arctic states, China pursues bilateral cooperation with Arctic states for practical reasons. In particular, Chinese economic power has proven to be a convenient and effective way to foster cooperation from smaller or weaker Arctic states.

China understands that scientific research offers China not only legitimate access to the Arctic but also a diplomatic channel to enhance cooperation with individual Arctic states. According to Chinese Arctic scholars, science and technology is the foundation for China's participation in Arctic affairs, though China's scientific research in the Arctic has lagged behind its research of Antarctica, which has undermined China's ability to expand its involvement in Arctic affairs.⁶ In China's justification for its expanding role in the Arctic, the need for more knowledge and a scientific approach to global warming and climate change has

⁵ Ibid.

⁶ Interview with experts, Beijing, June 2018.

constantly been cited as China's natural mandate. The circular argument is intentional and serves a strategic purpose to legitimize China's growing interests and role.

China does seek participation in and beyond Arctic regional organizations. Joining the Arctic Council as an observer in 2013 has been lauded in China as a landmark success for China's Arctic policy, as China finally gained legitimate recognition in perhaps the more important Arctic multilateral governance mechanism. However, China holds no illusions about the limited utility of the Arctic Council for China in terms of its authority and capacity in the Council as an observer. China understands perfectly well that observers only have very limited rights at the Arctic Council and are not allowed to participate in agenda-setting or decision-making. Therefore, Chinese experts argue that "joining the Arctic Council is neither the precondition nor the outer limit to China's participation in Arctic affairs."⁷ In addition, Chinese experts also regard the limited focus of the Arctic Council on environmental issues and sustainable development as insufficient to counter the diverse challenges, including political and economic, in the greater Arctic region.

In China's experience, bilateral cooperation in the Arctic has been most productive in expanding China's economic footprint. The pairing of China's economic power and some Arctic states' need for investment has been particularly helpful in the case of Russia. The international isolation and sanctions covering Russia since the Ukraine crisis are the critical factors that made it possible for China to reach key Arctic deals with Russia, including the Yamal LNG project in 2013 and the Polar Silk Road in 2018. Similarly, Iceland and Greenland also are enthusiastic about bilateral economic cooperation with China.

China sees itself as enjoying several unique advantages that are necessary for the development of the Arctic: financial capital, labor resources, and status as one of the largest consumer markets of natural resources. While China's political and security involvement in the Arctic faces challenges and obstacles due to the relative exclusiveness of the related discussions, especially for China as a non-Arctic state, China expects that Chinese companies could be a useful force to enhance Chinese presence in the Arctic through investment and project financing. Expanding economic presence would translate into indirect and soft influence in local affairs, increasing China's national influence in the region, hence creating and then strengthening China's legitimacy to enhance its political involvement and to promote such interests.

Policy and legal research on the Arctic has received increased attention and funding from the Chinese government. Most of such research has focused on the ways and means to expand China's interests, rights, and involvement in Arctic affairs, with an emphasis on Arctic shipping lanes and natural resource development. Interestingly, military security is the least covered arena in China's Arctic research. Even as the Naval Academy of Command conducted research on setting up a "safeguard" center in the Arctic, its main focus was on legal issues and limitations for such a pursuit. Military deployments or naval voyages by the PLA in the Arctic seems to be excluded from China's strategic planning at the current stage. This does not necessarily indicate China's lack of aspiration for strategic or security influence in the Arctic in the future. Rather, given the current geopolitical realities of the Arctic, China is hesitant to openly pursue such agendas. Instead, military research on the Arctic has focused on the "arms race" between the U.S. and Russia, as well as the military capabilities of these two powers in the Arctic.

⁷ Ibid.

The Internal Bureaucracy on the Arctic

Similar to much of the PRC's foreign policy, the interplay of many international actors and the complicated bureaucratic framework makes China's Arctic policy rife with challenges. As it currently stands, there are more than fifteen government agencies/institutions involved in China's Arctic policy. Although an interagency Arctic Affairs Coordination Group was allegedly established by the State Council in 2011, there is yet to be a clear structure of the management and coordination of the diverse group of China's Arctic players. This is particularly true after the institutional restructuring of the State Council in 2018, during which the State Oceanic Administration responsible for China's polar affairs was eliminated. This section provides an overview of key government institutions and their roles.

1. The primary managing agency: The Chinese Arctic and Antarctic Administration

The key Chinese government agency responsible for Arctic affairs is the Chinese Arctic and Antarctic Administration (CAAA). A Director-General (DG) level agency, the Administration was officially a part of the State Oceanic Administration (SOA). Its primary responsibilities have included:

- The making of China's polar development strategy, guidelines, and policies, the design and plan of China's polar research, as well as organizing research on key polar affairs;
- The making of laws, regulations, standards, and rules related to China's polar research and polar affairs; managing related polar affairs;
- Organization, coordination, supervision, and monitoring of China's polar research; developing and implementing scientific research in the polar field;
- Organization, coordination, and supervision of the basic development and capacity-building programs on polar research;
- Organization and coordination of the polar expedition teams; managing the polar expedition training camp and its overseas offices;
- Organization and coordination of foreign affairs related to the polar field and activities of related international organizations; management of China's polar communications and cooperation with foreign countries as well as Hong Kong, Macao, and Taiwan;
- Dissemination of scientific knowledge on the polar regions and teaching of the public.⁸

Internally, the CAAA is composed of six divisions:

- The General Affairs Division (responsible for the administration as well as the dissemination of scientific information and the management of CAAA's Chinese website);
- The Policy Planning Division (responsible for policy research, policy planning, design and enforcement of laws and regulations on polar affairs, and the day-to-day portfolio management of the Chinese Advisory Committee for Polar Research);
- The Expedition Affairs Division (responsible for the annual planning, organization, training, and management of the polar expedition team);
- The Science and Technology Development Division (responsible for the planning, implementation, and management of related scientific and technological research on the polar regions);

⁸ Chinese Arctic and Antarctic Administration. "Jidi kaocha bangongshi zhuyao zhize"极地考察办公室主要职责 [Primary Responsibilities of the Polar Research Office]. Last modified July 21, 2011. Accessed July 26, 2018. http://www.chinare.gov.cn/caa/gb_article.php?modid=02001.

- The International Affairs Division (responsible for research on international conventions, treaties, policies, and mechanisms on the polar regions, the international cooperation and exchanges, as well as the management of CAAA's English website);
- The Human Resources Division.⁹

The CAAA is not a large institution. According to its organizational chart, the CAAA only has 40 staff positions in total.¹⁰ However, based on its responsibilities, the CAAA is the most direct and authoritative government institution responsible for China's polar policy, which also includes the Arctic. Although the Chinese name of the CAAA (极地考察办公室) literally translates as "Polar Expedition Office," its real portfolio extends far beyond research and expeditions in the polar regions. In particular, the authority to craft, design, build, establish, and implement China's polar development strategies and the design of related laws and regulations makes the institution a central player in China's Arctic affairs.

Currently, the central question related to the CAAA is its undetermined position within the Chinese government bureaucracy. During the most recent institutional restructuring of the State Council in March 2018, the State Oceanic Administration was eliminated. Much of its portfolio has been absorbed by the newly established Ministry of Natural Resources, including the Bureau of Strategic Planning and Economic Affairs; the Bureau of Policy, Law, and Island Rights; the Bureau of Comprehensive Management of Maritime Regions; the Bureau of Disaster Forecast and Relief; the Bureau of Science and Technology; and the Bureau of International Cooperation.¹¹ However, the CAAA, also a DG-level agency compared to the aforementioned Bureaus, so far has yet to be included as the part of SOA absorbed into the portfolio of the Ministry of Natural Resources. This runs contrary to earlier speculations that the CAAA would transform into an independent polar affairs office under the new ministry.¹² Even more interestingly, months after the restructuring of the SOA, CAAA maintains the SOA prefix to its name on its website and in its references to itself. This could be because the Ministry of Natural Resources has inherited SOA's name upon absorbing its key departments. More importantly, this most likely suggests a bureaucratic contest between the Ministry of Natural Resources and other agencies about the importance of and authority over China's polar policy-making.

2. The Primacy Research Institution: The Polar Research Institute of China

The Polar Research Institute of China (PRIC) was founded in 1989 as a specialized institution solely dedicated to polar research in the Chinese government. By design, PRIC is also affiliated with SOA. Just

http://www.chinare.gov.cn/caa/gb_article.php?modid=02006.

⁹ Chinese Arctic and Antarctic Administration. "Jidi kaocha bangongshi neishe jigou"极地考察办公室内设机构 [Internal bodies of the Polar Research Office]. Last modified May 29, 2013. Accessed July 26, 2018. http://www.chinare.gov.cn/caa/gb article.php?modid=02002.

¹⁰ Chinese Arctic and Antarctic Administration. "Guojia haiyangju jidi kaocha bangongshi renyuan bianzhi"国家海洋局极地考察办公室人员编制[Chinese Arctic and Antarctic Administration's Polar Research Office Personnel Establishment]. Last modified May 29, 2013. Accessed July 26, 2018.

¹¹ "Zhonggong zhongyang yinfa 'shenhua dang he guojia jigou gaige fang'an'"中共中央印发"深化党和国家机构 改革方案"The Central Committee of the Chinese Communist Party Released the "Deepen the Party and State Institutional Reform Plan"]. Ministry of Natural Resources of the People's Republic of China. Accessed July 30, 2018. http://www.mlr.gov.cn/bbgk/.

¹² Zhang Chun 张春. "Zhongguo haiyang guanli mianlin xipai" 中国海洋管理面临洗牌 [Shake up for China's Ocean Management]. China Dialogue Ocean, April 16, 2018. Accessed July 26, 2018.

https://chinadialogueocean.net/2563-shake-up-for-chinas-ocean-management/?lang=zh-hans.

like CAAA, PRIC's current bureaucratic affiliation also remains unclear, although the assumption is that the Ministry of Natural Resources will host, if not absorb, PRIC. Much of the scientific research in and on the polar regions is carried out by PRIC, covering marine biology, polar biology, biochemistry, meteorology, climate change, ecology, electromagnetism, and more. A key component of PRIC's responsibility is conducting polar expeditions and managing the five research stations that China has established in Antarctica (Changcheng Station, Zhongshan Station, Kunlun Station, and Taishan Station) and in the Arctic (Yellow River Station). To this end, PRIC also manages the polar research icebreaker, the *Snow Dragon*. In addition, PRIC functions as the information center of China's polar science research. It develops and manages the polar database, archive, library, and biobank, and publishes the Chinese and English versions of Polar Research, a Chinese journal on natural and social science research on the Arctic and Antarctica.

3. Policy Coordination

China's involvement in Arctic affairs is relatively new for the Chinese government. After all, it was only in 1991 that the Chinese government discovered its signatory status to the Svalbard Treaty, which opened the door to initial Chinese activities in the Arctic, most notably of which has been science research. During the first two decades of China's Arctic exploration, China's interests in the Arctic began to expand significantly beyond the original theme of scientific research. The diversification of China's interests covers issues from natural resources development to the Arctic shipping route, as well as engaging in diplomatic negotiations regarding China's admittance into regional governance organizations and China's growing tourism interests. The diversification led to the proliferation of government actors involved in China's Arctic affairs and policy-making.

According to "Studies of Arctic Issues," a 2011 publication by China Ocean Press under SOA, polar issues cover multiple disciplines and relate to the mandate of as many as fourteen government agencies.¹³ These fourteen government agencies jointly form the Chinese Advisory Committee for Polar Research, which in turn provides information and other support to the agencies. As mentioned earlier, the office of the Advisory Committee overlaps with the Policy Planning Division of the CAAA, which carries out the administrative duties of the Committee. Within this structure, the State Council, SOA, CAAA, and PRIC form a direct, vertical supervisory relationship in that order. The fourteen government agencies include the Ministry of Foreign Affairs, National Development and Reform Commission, Ministry of Science and Technology, Ministry of Education, Ministry of Industry and Information Technology, Ministry of Land and Resources, Ministry of Finance, Ministry of Health, Chinese Academy of Sciences, Chinese Meteorological Administration, Chinese Earthquake Administration, State Bureau of Mapping and Surveying, the General Staff Department of the People's Liberation Army, and National Natural Science Foundation of China.¹⁴ The membership of the Advisory Committee has not been static. For example, during the 14th Meeting of the Committee in 2012, the Chinese Academy of Sciences and the Chinese Academy of Engineering appeared as members.¹⁵

¹³ "Beiji wenti yanjiu 北极问题研究 [Arctic Research]." Haiyang Chuban She 海洋出版社 (June 2011):365. ¹⁴ Ibid.

¹⁵ Yao Baolong 姚宝龙."Zhongguo jidi koacha gongzuo zixun weiyuanhui di14ci huiyi zai jing zhaokai"中国极地考察工作咨询委员会第 14 次会议在京召开[China's Polar Research Work Advisory Committee has its 14th Meeting in Beijing]. State Ocean Administration, October 12, 2012. Accessed July 26, 2018.

http://www.soa.gov.cn/xw/hyyw_90/201211/t20121109_1130.html.

It is worth pointing out that the Advisory Committee for Polar Research has a mandate limited to consultation related to polar research issues. According to a 2014 report by the International Polar and Maritime Studies Center of Tongji University, the responsibility of the Advisory Committee is to provide consultation to managing government agencies, organize academic exchanges, and provide science and technology consultation and evaluation to the polar expedition.¹⁶

Given the limited mandate of the Advisory Committee and the expansion of China's involvement in the Arctic, it is reasonable to expect the Chinese central government to establish a new coordination body to manage the issue. According to Yang Jian, Vice President of the Shanghai Institute of International Studies, the State Council had decided in 2011 to establish an inter-agency Arctic Affairs Coordination Small Group to manage and coordinate the diverse group of government players and agency interests.¹⁷ Generally speaking, such government actors could be divided into four categories:

On science and research issues:

- Ministry of Science and Technology: focuses on science and technology infrastructure related to the Arctic, cooperation with Arctic states on research related to climate change, and so on;¹⁸
- Ministry of Industry and Information Technology: focuses on polar telecommunications and satellite systems, such as Arctic fiber-optic cable development;¹⁹
- Chinese Academy of Sciences: focuses on scientific research such as remote sensing satellites,²⁰ atmospheric science,²¹ and ice coverage forecasting;²²

¹⁶ Sørensen, Camilla T.N. "Changing Geo=Political Realities in the Arctic Region: Possibilities and Challenges for Relations between Denmark and China." Newsletter for Center for Polar and Oceanic Studies, Copenhagen University (2014): 56, http://static-curis.ku.dk/portal/files/129064205/2014_2_.pdf.

¹⁷ "Yang Jian: Beiji zhili yu Zhongguo de daguo zeren"杨剑:北极治理与中国的大国责任 [Yang Jian: Arctic Governance and China's Responsibility as a Great Power]. Polar and Ocean Portal, April 19, 2015. Accessed July 27, 2018. http://www.polaroceanportal.com/article/6.

¹⁸ Fang Linlin 房琳琳. "Lianjie Beiji: 'Keji waijiao' chuandi Zhongguo guanqie" 连接北极: "科技外交" 传递中国关 切 [Linking the Arctic: "Scientific Diplomacy" Transmits Chinese Concerns]. Zhongguo keji 中国科技, January 24, 2018. Accessed July 27, 2018. http://www.stdaily.com/index/h1t18/2018-01/24/content 628459.shtml.

¹⁹ "Gongxinbu yu Zhongguo dianxin qiatan canyu kuabeiji haidi guanglan xitong jianshe" 工信部与中国电信洽谈 参与跨北极光缆系统建设[The Ministry of Industry and Information Technology and China Telecom Discuss Involvement in Constructing the Inter-Arctic Optical Cable System]. Big-Bit, December 18, 2017. Accessed July 27, 2018. http://conn.big-bit.com/news/263737.html.

²⁰ "Woguo shou ge haiwai ludi weixing jieshou zhan 'Beiji zhan' touru shiyunxing" 我国首个海外陆地卫星接收站 "北极站"投入试运行 [China's First Overseas Ground Satellite Receiving Station "Artic Station" Begins Trial-Runs]. Xinhua News Agency, December 25, 2016. Accessed July 27, 2018. http://www.xinhuanet.com/photo/2016-12/15/c_129406418.htm.

²¹ "Beiji Siwa'erba de qundao daqi kexue diaoyan" 北极斯瓦尔巴德群岛大气科学调研 [The Arctic's Svalbard Archipelago Atmospheric Science Survey]. Institute of Atmospheric Physics, Chinese Academy of Sciences, June 5, 2017. Accessed July 27, 2018. http://www.iap.cas.cn/xwzx/kyjz/201706/t20170605_4807886.html.

²² Liu Jiping 刘骥平. "Zhong keyuan daqi suo yuce jinnian beiji haibing zuixiao fugai mianji jiejin lishi di'er dizhi"中 科院大气所预测今年北极海冰最小覆盖面积接近历史第二低值[Chinese Academy of Sciences Predicts that this Year's Minimum Coverage of Arctic Sea Ice Will Approach the Second Lowest in History]. ScienceNet.cn, July 12, 2017. Accessed July 27, 2018. http://news.sciencenet.cn/htmlpaper/20177121193086644451.shtm.

- Chinese Meteorological Administration: focuses on climate change and weather forecasting;²³
- Chinese Earthquake Administration: engages in polar seismic and geomagnetic research, such as seismic observation stations in the Arctic;²⁴
- State Bureau of Mapping and Surveying: focuses on polar mapping, such as Beidou satellite GPS reference stations;²⁵
- National Natural Science Foundation of China: funds polar research projects.

On political and security issues:

- Ministry of Foreign Affairs: responsible for representing China's positions and policies on the Arctic in bilateral negotiations, on multilateral platforms, and at international organizations; for example, the Special Representative on Arctic Affairs participates in diplomatic consultations on the Arctic;²⁶
- People's Liberation Army: focuses on military security issues such as the security of shipping routes and missile defense;
- China Academy of Social Sciences: focuses on the study of foreign policy issues related to the Arctic, including research reports on Sino-Russian cooperation on Arctic energy resources.²⁷

On administrative issues:

- Ministry of Finance: responsible for budgets related to the Arctic;
- Ministry of Education: responsible for public education and school education on polar affairs.

On economic issues:

- National Development and Reform Commission: responsible for policy on resource exploration and development in the Arctic region, including shipping routes, natural resources, tourism, etc.;

²³ "Kepu yuedu: Tanmi Beiji qihou"科普阅读:探秘北极气候 [Popular Science Reader: Exploring the Mystery of the Arctic's Climate]. China Meteorological Administration, November 11, 2014. Accessed July 27, 2018. http://www.cma.gov.cn/2011xwzx/2011xqxxw/2011xqxyw/201411/t20141110_266536.html.

²⁴ "Beiji Huanghe zhan GPS weixing genzong zhan jiancheng ke yongyu dizhen jiance" 北极黄河站 GPS 卫星跟踪 站建成可用于地震监测 [The Arctic Yellow River Station's GPS Satellite Tracking Station is Built for Seismic Monitoring]. Sichuan Earthquake Administration, November 30, 2005. Accessed July 27, 2018. http://www.scdzj.gov.cn/xwzx/hydt/201006/t20100601 2835.html.

²⁵ Yan Ronghua 严荣华. "Guojia cehui dili xinxiju Beiji Huanghe zhan Beidou weixing daohang dingwei jizhun zhan kaitong yunxing" 国家测绘信息局北极黄河站北斗卫星导航定位基准开通运行 [The National Bureau of Surveying and Mapping Arctic Yellow River Station's Big Dipper Satellite Navigation and Positioning Base has Opened]. Ministry of Natural Resources of the People's Republic of China, September 11, 2018. Accessed July 30, 2018. http://www.mlr.gov.cn/xwdt/chxw/201609/t20160901_1415785.htm.

²⁶ "DiSan lun Zhong Ri Han Beiji shiwu gaoji bie duihua zai shanghai chenggong juxing"第三轮中日韩北极事务高级别对话在上海成功举行 [The Third Round of the China-Japan-ROK High-level Dialogue on Arctic Affairs was Successfully Held in Shanghai]. Ministry of Foreign Affairs of the People's Republic of China, June 8, 2018. Accessed July 30, 2018. http://www.fmprc.gov.cn/web/wjbxw_673019/t1567099.shtml.

²⁷ "Shekeyuan: Zhong E ke hezuo kaifa Beiji youqi" 社科院:中俄可合作开发北极油气 [Academy of Social Sciences: China and Russia Can Cooperate to Develop the Arctic's Oil and Gas]. Shiyou shouji bao 石油手机报 July 15, 2014. Accessed July 30, 2018. http://wap.cnpc.com.cn/system/2014/07/15/001497439.shtml.

- Ministry of Agriculture: focuses on fishing interests, such as the mandate to "actively participate in Arctic fishing affairs and conduct research and management of the Arctic fishing resources" in the "National Distant Water Fishing Fleet Development Plan during the 13th 'Five Year Plan;'"²⁸
- Ministry of Commerce: focuses on economic cooperation with Arctic states, including the most recent negotiation with the Russian Ministry of Economic Development on shipping route development, resources development, infrastructure, and tourism cooperation;²⁹
- Ministry of Transportation: focuses on the development of Arctic shipping routes, technical assistance in navigation guidelines, technical guarantees, and communications in the region, such as the publication of the Arctic Navigation Guideline.³⁰

Chinese Commercial Players in the Arctic

Given China's interests in natural resources and shipping lanes in the Arctic, Chinese energy industries, mining industries, and shipping industries are by far the most involved Chinese commercial players in the Arctic. With the announcement of the Polar Silk Road in the Arctic White Paper, it is expected that Chinese commercial activities in the region will soon expand into areas of infrastructure development.

All three Chinese state oil companies have key business portfolios in the Arctic region. China National Petroleum Corporation (CNPC) was the first Chinese oil company to enter the Arctic energy equity market in 2013, and China National Offshore Oil Corporation (CNOOC) was the first one to obtain a license for oil and gas exploration in the region. In 2013, CNPC purchased a 20% stake of the Yamal LNG Company from the Russian independent gas producer Novatek. In December 2015, the Chinese Silk Road Fund obtained another 9.9% of the project from Novatek, making China the second largest shareholder (Total S.A., a French company, being the smallest with a 20% stake). The Chinese interpretation of the cooperation framework is one in which Russia chairs the project development, France provides technology and consultation, and China provides funding and equipment. The first of the three trains became operational in December 2017, with the produced LNG exported to China.³¹ In 2017, Novatek is reported to have signed new agreements with CNPC and China Development Bank for the Arctic LNG 2 project.³²

²⁸ "'Shisan wu' quanguo yuanyang yuye fazhan guihua" "十三五" 全国远洋渔业发展规划 ["Thirteenth Fiver-year" National Ocean Fishery Development Plan]. Ministry of Agriculture and Rural Affairs of the People's Republic of China, December 21, 2017. Accessed July 30, 2018.

http://www.moa.gov.cn/gk/ghjh_1/201712/t20171227_6128624.htm.

²⁹ "Shangwu bu: tuijin bingshang sichou zhilu kaizhan Beiji diqu youqi kantan kaifa"商务部:推进冰上丝绸之路 开展北极地区尤其勘探开发[Ministry of Commerce: Promotion of the Polar Silk Road and Launch of the Development of the Polar Region's Oil and Gas Exploration]. Renmin wang 人民网, November 9, 2017. Accessed July 30, 2018. http://finance.people.com.cn/n1/2017/1109/c1004-29636859.html.

³⁰ "Jiaotong bu huiying Beiji hangxian fengxian: bing qing nan yuce huanbao yaoqiu gao"交通部回应北极航线风 险:冰情难预测 环保要求高 [The Transportation Bureau Responds to the Risk of the Arctic Route: The Ice is Hard to Predict and the Environmental Requirements are High]. China News, April 19, 2016. Accessed July 30, 2018. http://www.chinanews.com/gn/2016/04-19/7839715.shtml.

³¹ Wang Jinlong 王金龙. "Zhong E Yama'er xiangmu touchan nian zeng 400 wan du LNG jie 'qi huang'"中俄亚马尔 项目投产 年增 400 万吨 LNG 解 "气荒" [The China-Russian Yamal Project has been Put into Operation: The Annual 4 Million Ton Increase Will Solve the "Gas Shortage"]. Jiemian 界面 December 9, 2017. Accessed July 30, 2018. https://www.jiemian.com/article/1804472.html.

³² "Novatek Signs Chinese Deals for Arctic LNG 2." The Maritime Executive, November 4, 2017. Accessed July 30, 2018. https://www.maritime-executive.com/article/novatek-signs-chinese-deals-for-arctic-lng-2#gs.0OR1Jao.

Construction is expected to begin in 2019 and become operational by 2023. The LNG produced by both Yamal and Arctic LNG 2 will be exported through the Northern Sea Route.

CNOOC has prioritized contract services in the Arctic region. Its engineering subsidiary, China Offshore Oil Engineering Co., signed a record contract of 1.5 billion USD for the Yamal LNG project and entered the high-end LNG core process module market. Its oilfield service subsidiary, China Oilfield Services Limited (COSL) has five drilling rigs and vessels contracted for Russian projects in the Arctic and nearby. All four business segments of COSL, geophysical survey, drilling, well services, and marine support, have footprints in the Arctic.³³ As early as 2005, COSL had established its COSL Drilling Europe, headquartered in Stavanger, Norway. According to its official website, COSL Drilling Europe operates four modern drilling units and two accommodation units.³⁴ To prepare itself for entry into the Arctic market, COSL has been upgrading its facilities and capabilities to operate in the frigid waters. In 2016, its Arctic fleet conducted 3D seismic data collection in the Arctic and created a monthly data collection record of 1,820.58 square kilometers.³⁵

Compared to CNPC and CNOOC, the Arctic business of China Petroleum & Chemical Corporation (Sinopec) appears to be relatively moderate. The company has participated in the Yamal LNG process module contract and claims that the 214-PAU-003 module it produced was one of the most technically difficult modules for the Yamal project. (The project was developed by assembly of modules produced in China due to the extreme weather in Yamal).³⁶ In 2017, Sinopec appeared hopeful to enhance its Arctic footprint through Alaska. During President Trump's visit to China in November that year, an agreement between Sinopec, Bank of China, and China Investment Corporation and the government of Alaska and Alaska's state LNG company was reached as a part of the plan to increase U.S. LNG exports to China.³⁷ Sinopec has been highly enthusiastic about the prospect of cooperation with Alaska. However, with the turbulence associated with the U.S.-China trade war, the prospect of Sinopec's cooperation with Alaska remains uncertain.

The Arctic's rich mineral resources have been attractive to Chinese companies for more than a decade. The first endeavors by Chinese companies to plug into the Arctic's mineral-laden landscape started a decade ago with Jiangxi Zhongrun Mining's joint gold and copper exploration projects with British Nordic Mining Company in southern Greenland. Similarly, Jiangxi United Mining also conducted metallic mining exploration in James I Land in northwestern Svalbard.³⁸ Early efforts by Chinese mining companies began with the acquisition of existing projects owned by British and Canadian companies, rather than acquiring

Zixun Pindao 资讯频道, December 8, 2018. Accessed July 30, 2018.

http://inews.ifeng.com/50385339/news.shtml?&back.

³³ "Into the Arctic!" Win Win, China National Offshore Oil Corporation 61 (September 2016): 15. http://www.cnooc.com.cn/attach/0/1610281026462361289.pdf.

 ³⁴ COSL. "Company Overview." About COSL. Accessed July 30, 2018. http://www.cosl.no/company-overview.
³⁵ "Into the Arctic!" Win Win, 17.

³⁶ Yin Ping 殷萍. "Zhongshihua zhizao Zhong E zuida hezuo xiangmu, jinjun Beiji"中石化制造中俄最大合作项目, 进军北极 [Sinopec Manufactures the Largest Cooperative Project between China and Russia, Enter the Arctic].

³⁷ "'Beiji youguan' Alasijia Zhonguo 'Mi chun'" "北极油罐"阿拉斯加中国觅春["Arctic Oil Tank" Alaska and China "Look for Spring"]. Sinopec News, November 13, 2017. Accessed July 30, 2018.

http://www.sinopecnews.com.cn/news/content/2017-11/13/content_1693332.shtml.

³⁸ "Zhongguo qiye jinjun Beiji beihou de 'an zhan'" 中国企业进军北极背后的"暗战"[Chinese Companies Enter the "Dark War" behind the Arctic]. China Daily, January 26, 2015. Accessed July 30, 2018.

http://www.chinadaily.com.cn/interface/toutiao/1138561/2015-1-26/cd_19409961.html.

the necessary licenses for exploration and leading most of these inherited projects to encounter unexpected obstacles due to the Chinese companies' lack of knowledge of local regulations.³⁹

The most sensational case of Chinese companies' mining endeavor in the Arctic is the Isua iron ore project, a 2.3 billion USD project located in western Greenland. In 2015, Chinese General Nice Development Limited, one of China's largest coal and iron ore importers, purchased London Mining Greenland, including the Isua project license owned by it.⁴⁰ However, three years into the deal, there has been no update on the progress or actual production of the mine itself. Indeed, the Chinese encountered numerous obstacles in the development, including Greenland's inability to export mineral resources without Denmark's approval, the technical difficulties associated with the frigid weather, and the lack of infrastructure and power supply.⁴¹ Most importantly, the economic equations cannot square. The price of iron ore internationally has been sluggish, around 50-70 USD per ton since the company's purchase of the Isua project. However, the production cost of the project (40 USD/ton) and the shipping cost to China (37 USD/ton) have made its iron ore an uneconomical option for the Chinese market. Therefore, the profitability of the mine is a serious question. China's rising interests in the Arctic and the lack of a success story in Chinese companies' mining endeavors in the Arctic form an interesting contrast. The case of the Isua project could serve as a good example of the complicated reasons behind the lack of success.

The shipping industry has been perceived and portrayed as the most promising commercial area for China given the expected acceleration of the melting of Arctic sea ice. There are three main routes that connect the Atlantic and the Pacific Oceans: the Northeast Passage (also known as the Northern Sea Route), the Northwest Passage, and the Transpolar Sea Route. Among the three, the Northern Sea Route could shorten the shipping distance between China and Europe by approximately 5000 miles and the shipping time by 10 days compared to the traditional shipping route through the Strait of Malacca and the Suez Canal. ⁴² Correspondingly, the argument continues that it can also cut shipping costs and avoid nontraditional security threats associated with the traditional shipping route such as piracy.⁴³

So far there has been only one Chinese company involved in the Arctic shipping – COSCO Shipping Specialized Carriers Company (COSCOL) under China Ocean Shipping Company (COSCO), the largest shipping state-owned enterprise in China. The first voyage through the Northern Sea Route happened in the summer of 2013, by *Yongsheng*, an ice-class cargo ship owned by COSCOL. According to official

北极圈寻矿 ["China's Economy Overseas" Series 6—Arctic Circle Prospecting]. Caixin 财新, November 18, 2011. Accessed July 30, 2018. http://topics.caixin.com/2011-11-18/100329737.html?sourceEntityId=100442678. ⁴⁰ "Isua Project Sold to General Nice." Anglo Pacific News, January 27, 2015. Accessed July 30, 2018. http://www.anglopacificgroup.com/isua-project-sold-to-general-nice/.

³⁹ "'Zhongguo jinji zai haiwai' xilie zhii liu—Beiji quan xun kuang" "中国经济在海外"系列之六—

⁴¹ "Zhongqi shouci quanzi huo Beiji ziyuan xiangmu, xu touzi 23yi meiyuan"中企首次全资获北极资源项目 需投资 23 亿美元 [Chinese Companies First Wholly Owned Arctic Resources Project, Requires USD23 Hundred Million in Investment]. Sohu Business, January 13, 2015. Accessed July 30, 2018. http://business.sohu.com/20150113/n407747519.shtml.

⁴² "Beiji dongbei hangdao li women duo yuan?" 北极东北航道离我们有多远?[How far is the Arctic Northeast Passage from us?]. State Oceanic Administration, July 27, 2012. Accessed July 30, 2018.

http://www.soa.gov.cn/xw/ztbd/2012/zgdwcbjkxkc/zghybjzjw/201211/t20121129_10317.htm.

⁴³ It should be noted that the Northeast Passage offers lower shipping cost is subject to debate because shipping through the Arctic requires more complicated technical and logistical support including icebreakers, special navigation, insurance and the tolls through the Russian territorial waters. All these services add up to the cost.

estimates, since the first voyage, COSCOL has had ten vessels complete 14 trips through the Arctic.⁴⁴ The cost-saving implications of this are important: the 14 trips in total saved a travel distance of 67,390 nautical miles, cutting travel time by 220 days, fuel consumption by 6,948 tons, and cost by 9.36 million USD.⁴⁵ By way of legitimizing China's goal of cementing the Northern Sea Route as a consistently viable waterway, COSCOL vessels have been sailing through the passage every year since 2015. The company estimates that more than 10 ships will continue the mission this year.⁴⁶ This could suggest that after defining the Northern Sea Route as a key focus of China's Arctic policy in the White Paper, Arctic shipping lanes will become another highlight of China's Arctic endeavors.

The Arctic shipping lanes apparently have created major growth potential for China's commercial shipping industry and, consequently, its shipbuilding industry.⁴⁷ Other than the normalization of Arctic commercial shipping, COSCO has contracted Shanghai Shipyard to build three new 36,000-ton ice class multi-purpose cargo ships (all completed by 2018) to spearhead the company's Arctic shipping capability.⁴⁸ For the Yamal LNG project, China's Guangzhou Shipyard International had won the contract from the Yamal LNG project to build two polar-class, heavy lifting deck carriers, *Audax* and *Pugnax*, within two years from 2014 to 2016.⁴⁹ The Chinese government has contracted Jiangnan Shipyard to build the first home-built icebreaker, *Snow Dragon 2*, to be commissioned in 2019 to conduct scientific research.⁵⁰

Besides energy development, shipping, and shipbuilding, the Chinese business community hopes that the Polar Silk Road will stimulate the growth of a series of industries, including but not limited to port development, land transportation network, logistics, and public-private partnership in financing

http://world.people.com.cn/n1/2018/0210/c1002-29816940.html.

⁴⁴ "Zhongguo yuanyang haiyun jituan jin xia jiang you 10 sou yishang shangchuan chuanyue Beiji hangdao"中国远 洋海运集团今夏将有 10 艘以上商船穿月北极航道 [China Ocean Shipping Group will have more than 10 Merchant Ships Crossing the Arctic Channel this Summer]. Xinhua News, June 19, 2018. Accessed July 30, 2018. http://www.xinhuanet.com/politics/2018-06/19/c_1123006124.htm.

⁴⁵ "Zhongyuan haiyun Beiji hangxian Riben tuijie hui kaiqi 'bingshang sichou zhi lu' hezuo"中远海运北极航线日本 推介会开启"冰上丝绸之路"合作 [COSCO's Ocean Arctic Route Japanese Promotional Event Begins "Polar Silk Road" Cooperation]. Renmin Wang 人民网, February 10, 2018. Accessed July 30, 2018.

⁴⁶ "Zhongguo yuanyang haiyun jituan jin xia jiang you 10 sou yishang shangchuan chuanyue Beiji hangdao"中国远 洋海运集团今夏将有 10 艘以上商船穿月北极航道 [China Ocean Shipping Group will have more than 10 Merchant Ships Crossing the Arctic Channel this Summer]. Xinhua News, June 19, 2018. Accessed July 30, 2018. http://www.xinhuanet.com/politics/2018-06/19/c_1123006124.htm.

⁴⁷ "Beiji hangdao 'suxing' zaochuanye qianjing jihe?" 北极航道"苏醒"造船业前景几何? [Is the Arctic Passage "Revival" the Future of the Shipping Industry?]. Haochuan 好船, September 23, 2014. Accessed July 30, 2018. https://news.hsdhw.com/168807.

⁴⁸ "Zhongyuan haiyun Beiji hangxian Riben tuijie hui kaiqi 'bingshang sichou zhi lu' hezuo." "'Tianyou' hao bing ji duo yongtu Zhong diao chuan shanhai chuanchang jiaofu, shou hang tujing Beiji hangxian" "天佑"号冰级多用途重 吊船上海船厂交付, 首航途径北极航线 ["God Bless" the Ice-class Multi-purpose Heavy Hang Ship Delivered by the Shanghai Shipyard made Its Maiden Voyage through the Arctic Passage]. Meiri Toutiao 每日头条, June 22, 2018. Accessed July 30, 2018. https://kknews.cc/other/ggo4zqe.html.

⁴⁹ "Ice-class Heavy-lifters were Designed and Built in Two Years." Offshore Support Journal, July 15, 2016. Accessed July 30, 2018. http://www.osjonline.com/news/view,iceclass-heavylifters-were-designed-and-built-in-two-years_43793.htm.

⁵⁰ "China's First Home-built Icebreaker in Production." The Telegraph, April 13, 2018. Accessed July 30, 2018. https://www.telegraph.co.uk/news/world/china-watch/technology/china-builds-snow-dragon-icebreaker/.

infrastructure projects.⁵¹ Being integrated into the Belt and Road Initiative brings the Arctic projects new attention and resources from the Chinese central government. An increasing number of Chinese commercial actors are expected to emerge in the Arctic region.

Conclusion

Constrained by its non-Arctic state identity, China's activities and approach to the Arctic rely primarily on soft issues such as scientific research, global governance, and economic cooperation and steer away from political, security, and military affairs. It pursues cooperation with Arctic states on multilateral, regional, and bilateral levels and identifies bilateral cooperation as an effective approach to practical results. As China's Arctic activities expand, the proliferation of government and commercial actors create rising demand for policy coordination. China is still at an early stage in its Arctic engagement. With the newly introduced Polar Silk Road, the complexity and intensity of China's Arctic activities are expected to increase significantly.

⁵¹ "Shanghai guoji hangyun zhongxin jianshe maixiang 'shenlan'"上海国际航运中心建设迈向"深蓝"[Shanghai International Shipping Center's Construction Moves Toward the "Deep Blue"]. Shanghai International Shipping Center, April 8, 2018. Accessed July 30, 2018. http://www.shisc.net/detail/78117.

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