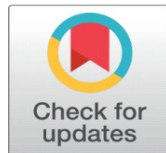


CHINA'S NEAR-ARCTIC STATE AMBITIONS AND OVERLAP WITH PACIFIC MARITIME DEFENCE: BLIND SPOTS FOR THE U.S. AND INDIA

Ishita Tripathi ¹, Dr. S.S Bindra ²

¹ Ph.D. Research Scholar, Amity Institute of International Studies, Amity University Uttar Pradesh, Noida, India

² Guide, Director Research, Amity Institute of International Studies, Amity University Uttar Pradesh, Noida, India



ABSTRACT

China's self-designation as a "near-Arctic state" in its 2018 Arctic Policy represents a critical expansion of its strategic footprint beyond the Indo-Pacific, signalling an intent to integrate Arctic access routes and resources into the framework of the Belt and Road Initiative (BRI). While global attention often focuses on the South China Sea and Indian Ocean as theatres of naval rivalry, the overlooked linkages between China's Arctic ambitions and its Pacific maritime defence strategy are reshaping the broader security architecture. This paper examines how Beijing's pursuit of the Polar Silk Road, cooperation with Russia over the Northern Sea Route (NSR), and investments in dual-use infrastructure align with its blue-water naval expansion in the Pacific. It argues that U.S. and Indian strategic postures exhibit a significant blind spot by treating the Arctic and Pacific theatres in isolation, thereby underestimating China's integrative approach to maritime defence.

In its methodology, the study utilises a mixed framework: (i) it observes the advancement of official policy documents, white papers, and strategy reports between 2017 and 2025; (ii) it investigates the maritime traffic and infrastructure along the Bering Strait and NSR; and (iii) it compares the U.S. and India's Arctic and Indo-Pacific strategies. The results of this study illustrate how China strengthens its naval posture in the Pacific by utilising its "near-Arctic" location for establishing energy, logistics, and underwater surveillance capabilities. The approaches of the United States and India remain separated, with the U.S. prioritising Arctic competitiveness with Russia and India concentrating on scientific diplomacy, resulting in serious shortcomings in marine domain awareness and chokepoint management.

This study contributes to ongoing scholarly debates by highlighting the ways in which China's Arctic-Pacific nexus defies contemporary maritime defence paradigms and by recommending actionable strategies for policymakers in both New Delhi and Washington. By highlighting how China's Arctic-Pacific connection contradicts current marine defence paradigms and suggesting policy recalibrations for Washington and New Delhi, this article adds to the body of knowledge.

Keywords: China, Near-Arctic State, Polar Silk Road, Pacific Defence, U.S. Strategy, India's Arctic Policy, Northern Sea Route, Indo-Pacific Security

DOI

[10.29121/shodhkosh.v5.i6.2024.6317](https://doi.org/10.29121/shodhkosh.v5.i6.2024.6317)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



1. INTRODUCTION

The Arctic, once perceived as a frozen frontier beyond the realm of great power politics, has rapidly emerged as a strategic arena due to climate change, technological advances, and the opening of new maritime corridors. China's 2018 Arctic Policy White Paper boldly declared its self-identification as a "near-Arctic state", asserting a right to participate in Arctic governance, development, and shipping routes. As Chinese Foreign Minister Wang Yi noted in 2019, "The Arctic belongs to all humankind, and non-Arctic states also have rights and responsibilities in its development" (Ministry of Foreign Affairs of the People's Republic of China [MFA], 2019). This framing reconsiders established perspectives of regional ownership while extending Beijing's strategic horizon beyond the Indo-Pacific.

From a realist perspective, China's Arctic ambitions embody classical power-maximizing behaviour. John Mearsheimer's (2001) offensive realism reminds us that great powers are "always searching for opportunities to gain power at the expense of rivals" (p. 29). By seeking access to Arctic energy reserves—estimated at 13% of undiscovered oil and 30% of undiscovered natural gas (U.S. Geological Survey [USGS], 2008)—China aims to diversify energy security and circumvent vulnerabilities at chokepoints like the Malacca Strait. U.S. Secretary of State Mike Pompeo warned in 2019 that "China's pattern of aggressive behaviour elsewhere should inform our approach to the Arctic" (Pompeo, 2019), underscoring Washington's concern that Beijing's Polar Silk Road is not merely economic but strategically dual use.

Constructivist scholars, however, underscore the role of identity and discourse. The label "near-Arctic state" is not a legal category recognized by international law, but a self-ascribed identity meant to normalize China's presence in Arctic governance. As Young (2019) argued, "The Arctic is as much a social construct as a physical space; the framing of actors' rights and responsibilities is contested" (p. 124). By redefining itself through discourse, China reshapes international perceptions and attempts to legitimize expanded influence in a region traditionally dominated by Arctic littoral states.

In contrast, India's Arctic engagement has taken a slower yet steady trajectory, rooted in scientific diplomacy rather than hard security. India established its first Arctic research station, Himadri, in Svalbard in 2008, and launched its Arctic Policy in 2022, which highlights research, climate studies, and sustainable development (Government of India, 2022). New Delhi's involvement is framed through its long-standing observer status in the Arctic Council (since 2013), which lends legitimacy to its role. Indian policymakers emphasize that their Arctic vision is guided by the principle of "climate responsibility" rather than strategic militarization. Former Foreign Secretary Harsh Vardhan Shringla noted in 2021 that "India's engagement in the Arctic is a natural extension of our scientific and environmental commitments" (Shringla, 2021).

Globally, India's role has been received positively, particularly among Nordic countries and the European Union (EU), which see it as a responsible stakeholder and a counterweight to China's assertive ambitions (European External Action Service [EEAS], 2021). Yet some Indo-Pacific strategists caution that India's absence from hard security planning in the Arctic creates vulnerabilities within broader maritime defence frameworks. This reflects a liberal institutionalist perspective—valuing India's science-based cooperation—while also inviting a realist critique of India's limited deterrence posture.

2. THE ARCTIC AS A STRATEGIC FRONTIER

The Arctic has historically served as both a geopolitical buffer and a strategic frontline. During the Cold War, its geographical proximity between the United States and the Soviet Union turned it into a critical theatre of nuclear deterrence. The shortest flight path for intercontinental ballistic missiles (ICBMs) between the two superpowers was across the North Pole, making the Arctic central to strategic calculations (Åtland, 2014). U.S. and Soviet nuclear submarines patrolled beneath the ice cap, while radar systems like the Distant Early Warning (DEW) Line were constructed across Alaska, Canada, and Greenland to detect incoming Soviet bombers. As historian John Lewis Gaddis noted, "*The Arctic was less a frozen wasteland than a forward operating line for nuclear deterrence*" (Gaddis, 2005, p. 122).

With the dissolution of the Soviet Union in 1991, the Arctic briefly transformed from a military frontier into a zone of post-Cold War cooperation. The establishment of the Arctic Council in 1996, which includes the eight Arctic states and indigenous communities, institutionalized governance centered on environmental protection, scientific collaboration, and sustainable development. Symbolically, this was an era when the Arctic was framed more as a laboratory for climate research than as a contested battleground. Former U.S. Secretary of State Hillary Clinton in 2010 called the Arctic "a unique region where science and diplomacy must guide our cooperation" (Clinton, 2010).

However, the past two decades have seen the Arctic re-emerge as a strategic frontier, shaped by climate change, technological advancement, and resource competition. Melting ice has opened up shipping routes such as the Northern Sea Route (NSR) along Russia's Siberian coast and the Northwest Passage (NWP) through Canada's Arctic Archipelago. According to the U.S. Geological Survey (2008), the Arctic holds about 13% of the world's undiscovered oil and 30% of its undiscovered natural gas, turning it into a focal point for energy security. This resource potential has attracted non-Arctic states like China, which declared itself a "near-Arctic state" in 2018 (State Council Information Office of the People's Republic of China, 2018).

Military activity has also intensified. Russia has reactivated Soviet-era bases on the Kola Peninsula, upgraded its Northern Fleet, and invested in nuclear-powered icebreakers. NATO has resumed large-scale Arctic exercises such as Trident Juncture 2018 in Norway, signalling renewed interest in high-latitude security. The U.S. Coast Guard, facing gaps in its icebreaking capabilities, has repeatedly flagged the region as critical to national security (U.S. Government Accountability Office [USGAO], 2020). Admiral James Foggo of the U.S. Navy warned in 2020 that “the next great competition is not just in the South China Sea, but across the polar regions” (Foggo, 2020).

At the same time, the Arctic is not merely a traditional military theatre—it is also a testing ground for hybrid security challenges. Issues like the vulnerability of undersea cables, cyber threats to offshore platforms, and “grey-zone tactics” involving dual-use research vessels complicate the picture. China’s deployment of the *Xuelong 2* icebreaker for scientific missions, while also enabling polar navigation expertise, is a prime example of this blurred line between science and security (Brady, 2017).

In current scenario, the Arctic functions as a strategic hinge between the Atlantic and Pacific oceans. It is both an arena of resource nationalism and a corridor of great-power competition. For the United States, the Arctic remains integral to homeland defence via Alaska. For Russia, it is the gateway to economic revival and military projection. For China, it is a new frontier for global maritime expansion, linked with the Polar Silk Road and its ambitions as a blue-water power. India, though less militarized in its outlook, engages primarily through scientific diplomacy, but its actions are increasingly scrutinized within the larger geopolitical calculus.

The Arctic is no longer a remote periphery but a **strategic frontier in transition**—from Cold War nuclear standoff, through post-Cold War cooperation, to present-day multipolar rivalry. Its significance lies not only in its energy and shipping potential but also in its role as a **linkage point between the Arctic and Pacific security architectures**, making it a central axis of 21st-century maritime geopolitics.

3. CHINA’S GRADUAL ENTRY (1990S–2018)

China’s Arctic interest began in the 1990s with scientific expeditions, including its first Arctic research voyage in 1999, followed by the establishment of the Yellow River Research Station in Svalbard in 2004 (Brady, 2017). The commissioning of the *Xuelong*¹ (Snow Dragon) icebreaker further expanded Beijing’s polar capabilities. The decisive shift came in 2018 with the publication of the Arctic Policy White Paper, where China declared itself a “near-Arctic state” and unveiled the Polar Silk Road (PSR) as an extension of the Belt and Road Initiative (State Council Information Office of the People’s Republic of China, 2018).

Chinese scholars such as Guo (2012) argued that “China’s future in the Arctic is not a matter of choice, but of necessity” (p. 5), underscoring the strategic logic of energy diversification and trade route access. Economically, the Northern Sea Route (NSR) shortens shipping time to Europe by up to 40%; strategically, it reduces reliance on vulnerable chokepoints like the Malacca Strait. From a realist perspective, this constitutes a hedging strategy to offset U.S. and allied dominance in the Pacific.

3.1. MAJOR DEVELOPMENTS (2017–2025)

With the release of China’s *Arctic Policy White Paper* in January 2018 was a turning point in global perceptions of Beijing’s polar ambitions. By designating itself a “near-Arctic state,” China claimed legitimacy to participate in Arctic governance, citing the principle that the Arctic “concerns the survival, development, and future of all humankind” (State Council Information Office of the PRC, 2018). While not recognized in international law, this self-ascribed identity is a classic example of constructivist framing—reshaping norms to justify participation in governance structures historically reserved for Arctic littoral states.

The policy emphasized four pillars: participation in Arctic governance, sustainable use of resources, climate research, and the Polar Silk Road (PSR) as part of the Belt and Road Initiative (BRI). By embedding the Arctic within the BRI, China integrated it into its maritime power projection strategy, linking Arctic shipping corridors to Pacific defence.

¹ Xuelong: It is the icebreaker of the Polar Research Institute of China. It is the largest non-nuclear-powered icebreaker in the world. The Xuelong is 167m long, almost 23m wide and the ice class is B1 level, it can break through 1.1m of ice, including 20cm of snow by 1.5knots continuously.

As Anne-Marie Brady (2017) observed, "*China's polar strategy is both about access to resources and about advancing the global reach of Chinese power.*"

For the U.S. and India, this development exposed significant gaps in their strategic approaches. The U.S. initially downplayed China's Arctic policy, focusing instead on Russian militarization. India, meanwhile, welcomed China's scientific emphasis but avoided challenging its strategic undertones, reflecting New Delhi's preference for science diplomacy over hard power competition.

3.2. KEY PROJECTS AND INITIATIVES

1) Yellow River Research Station, Ny-Ålesund, Svalbard (Norway, 2004–present):

- Established in 2004, this was China's first permanent research presence in the Arctic. It conducts studies on glaciology, atmospheric science, microbiology, and marine ecosystems.
- While China frames this as a purely scientific initiative, some Western analysts argue that the station has potential dual-use functions (e.g., satellite tracking and climate monitoring with military applications).
- Norway permits this under the Svalbard Treaty, but debates persist in Norwegian media about whether Chinese research aligns with demilitarization commitments.

2) China-Iceland Arctic Science Observatory (Kárhóll, Iceland, 2018–present):

- A joint venture between the Icelandic Centre for Research and the Polar Research Institute of China, this facility focuses on atmospheric and aurora borealis studies.
- Public sentiment in Iceland has been mixed: scientific communities see it as beneficial cooperation, but local media and some politician's express scepticism, fearing geopolitical motives behind research infrastructure. A 2018 Iceland Review editorial warned that "Iceland must be cautious not to become a pawn in China's polar ambitions."

3) Icebreaker Fleet Development:

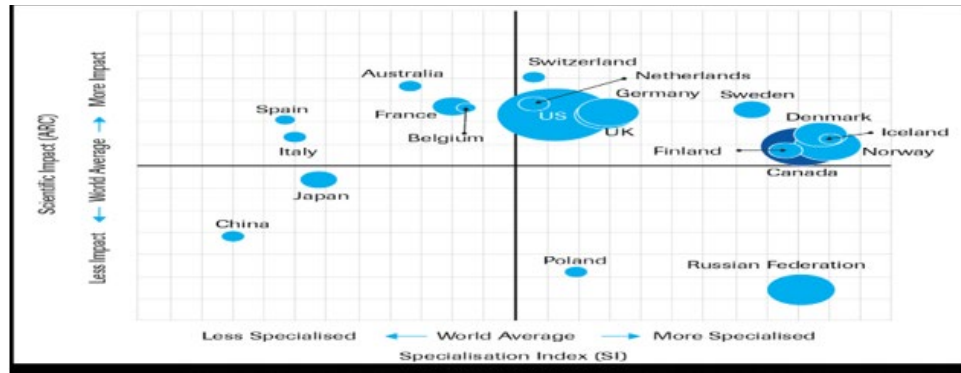
- China operates the *Xuelong* (Snow Dragon, purchased from Ukraine in 1993) and *Xuelong 2* (its first domestically built icebreaker, launched in 2019).
- Both vessels conduct scientific expeditions but also demonstrate capabilities in high-latitude navigation, giving China operational experience useful for potential military or commercial logistics.

4) Sino-Russian Arctic Energy and Infrastructure Partnerships:

- Investments in Yamal LNG (2017) and Arctic LNG 2 projects.
- Participation in port development and shipping along the Northern Sea Route (NSR).
- Chinese media project these as milestones in "*win-win cooperation*", while Western media warn of strategic overreach, especially given Russia's reliance on Chinese financing under Western sanctions.

5) Scientific Diplomacy and Multilateral Forums:

- China holds observer status in the Arctic Council since 2013, giving it a formal role in Arctic governance.
- The Polar Research Institute of China has partnered with institutions in Finland, Sweden, and Canada on climate and environmental projects.

Figure 1

² **Figure 1** “Presence before power: why China became a near-Arctic state” (Clingendael Institute, 2020).

4. SINO-RUSSIAN COOPERATION (2017–2025): JOINT PROJECTS IN LNG AND INFRASTRUCTURE ALONG THE NSR

Sino-Russian cooperation in the Arctic has deepened significantly since 2014, when Western sanctions on Russia following the annexation of Crimea restricted Moscow’s access to Western capital and technology. Facing isolation, Russia turned eastward, and China — flush with capital and seeking diversified energy routes — emerged as a critical partner. This convergence laid the groundwork for joint ventures in energy, infrastructure, and shipping along the Northern Sea Route (NSR).

Russia has long viewed the Arctic as its strategic backyard, with President Vladimir Putin declaring in 2017 that “*the Arctic is Russia’s resource base for the 21st century*” (Putin, 2017). For China, partnership with Russia offered entry into a region where it lacked territorial claims but could leverage investment, technology partnerships, and logistics.

4.1. KEY ENERGY AND INFRASTRUCTURE PROJECTS

1) Yamal LNG (2017):

- China National Petroleum Corporation (CNPC) acquired a 20% stake, and the Silk Road Fund took 9.9%. (Circumventing sanctions: Yamal LNG becomes a precedent, (2016)
- The China Development Bank and Export-Import Bank of China provided over \$12 billion in financing, critical to sustaining the project after Western sanctions cut off capital access. (Murray, 2021)(p.43-59)
- LNG shipments from Yamal to China via the NSR became symbolic of the Polar Silk Road in practice.

2) Arctic LNG 2 (2019–present):

- China National Offshore Oil Corporation (CNOOC) and CNPC each acquired 10% stakes in this project on the Gydan Peninsula. (Reuters,2023)
- Despite sanctions pressures after 2022, China has maintained its equity positions, signalling long-term commitment to Arctic energy corridors.

3) Port and Shipping Cooperation:

- COSCO Shipping has conducted multiple trial voyages along the NSR since 2013, with increasing regularity after 2017.(High North News,2019)
- In 2019, COSCO completed nine transits, a record for a non-Arctic state shipping company, reinforcing the viability of Arctic shipping as a supplement to Pacific routes.

² This timeline visually captures stages of China’s Arctic progression:

- **Early scientific outreach** (spanning late 20th century)
- **Institutional milestones** (Yellow River Station, Arctic Council observer status)
- **Strategic reclassification** (designation as “near-Arctic state”, emergence of the Polar Silk Road)

4) Financial and Institutional Mechanisms:

- Russia and China agreed to settle Arctic LNG transactions in yuan and rubbles, reducing dependence on the U.S. dollar and signalling a geo-economic hedge against sanctions. (Russian Council, 2016)
- The Polar Silk Road was explicitly recognized in the 2017 China–Russia joint statement, integrating Arctic development into the Belt and Road Initiative.

5. MILITARY AND SECURITY DIMENSIONS

While the official emphasis has been on energy and commerce, the cooperation carries implicit security dimensions:

- Russia's Northern Fleet and China's People's Liberation Army Navy (PLAN) conducted their first joint naval exercise in the Baltic in 2017, interpreted by some analysts as symbolic of broader maritime coordination.
- China's access to Arctic LNG facilities provides it with logistical nodes that could support dual-use infrastructure in the future.
- The NSR also offers China a potential alternative supply chain route during Pacific crises, enhancing its maritime resilience.

6. U.S. BLIND SPOTS

Since the Cold War, the U.S. has had only a limited Arctic infrastructure footprint compared to Russia, which maintains a vast network of bases, nuclear icebreakers, and the Northern Fleet in Murmansk. The U.S. Coast Guard (USCG) remains the lead operator for polar access, yet its assets have been thin for decades. The U.S. currently has just two polar-capable icebreakers: the aging Polar Star (commissioned in 1976) and Healy (1999), both stretched between Arctic and Antarctic missions.

The Polar Security Cutter (PSC) program, meant to recapitalize the fleet with three heavy icebreakers, has faced repeated delays. The U.S. Government Accountability Office (U.S. Government Accountability Office [USGAO], 2024) warned that the lead ship is at least four years behind schedule and faces affordability and design risks. Meanwhile, traffic through the Bering Strait is at record highs (92 NSR transits in 2024), meaning U.S. capability is lagging exactly when access matters most.

This leaves Washington unable to maintain persistent presence in Arctic corridors, creating gaps in maritime domain awareness (MDA) and search and rescue (SAR) at the chokepoint. As one USCG admiral put it: "Our adversaries are present in the Arctic every day. We are not." (Admiral Paul Zukunft, USCG Commandant, 2018).

The U.S. has traditionally viewed the Arctic through the lens of Russia's military dominance. During the Cold War, this meant nuclear deterrence and bomber patrols. Today, Russia is still the primary hard-power player, with over 50 Arctic bases modernized or reactivated since 2007.

The 2022 U.S. National Strategy for the Arctic Region (NSAR) names both Russia and China as competitors but places far greater emphasis on Russia's military posture. China's role is described mostly in terms of "scientific and commercial activities," despite Beijing's financial leverage in Arctic LNG projects, COSCO's repeat Northern Sea Route voyages, and the Polar Silk Road narrative.

By treating Russia as the only hard threat and China as a secondary, economic actor, Washington risks underestimating their synergy. Russia supplies geography, bases, and legal control of the NSR; China supplies capital, cargo, and a legitimizing narrative. Together, they normalize a corridor that enhances China's Indo-Pacific resilience. Heather Conley of CSIS cautioned: "The U.S. risks strategic surprise if it continues to view China and Russia as separate Arctic problems."

The Bering Strait is just 82 km wide, jointly controlled by the U.S. (Alaska) and Russia (Chukotka). As NSR traffic grows, it becomes a critical chokepoint linking the Arctic and Pacific. In 2018, the International Maritime Organization (IMO) implemented routing measures (two-way lanes, precautionary areas, ATBAs) to reduce accident risk.

Figure 2³ **Figure 2** Bering Strait (World Atlas, n.d.)

While safety has improved, these measures do nothing to counter grey-zone tactics. Dual-use vessels (e.g., Chinese “research” ships) can conduct surveillance or map undersea cables under the cover of science. The U.S. lacks persistent icebreaking, patrol, and monitoring to deter such activities.

The U.S. is in a position where it manages maritime safety but not strategic deterrence. Admiral Karl Schultz (USCG Commandant, 2020) warned: “What happens in the Arctic doesn’t stay in the Arctic—it is linked to the broader maritime commons.” Without upgrading chokepoint resilience, Washington risks blind spots in both Arctic and Pacific deterrence.

Since 2014, U.S. and European sanctions have constrained Russia’s Arctic development, cutting access to Western finance and technology. After the Ukraine war (2022–), sanctions targeted Arctic LNG-2, limiting foreign investment and shipping.⁴

Sanctions have slowed Russia’s Arctic energy projects, but China has quietly stepped in. CNPC and CNOOC each hold 10% stakes in Arctic LNG-2, and Chinese shipyards have been tapped to build LNG carriers when Western suppliers withdrew. Transactions are increasingly settled in yuan and Rubles, insulating projects from dollar-based sanctions.

While Washington celebrates sanctions as a constraint on Russia, it risks overlooking China’s adaptive learning. Beijing pauses when sanctions bite, resumes when conditions allow, and uses the process to harden alternative logistics and financial systems. The result: Russia is slowed, but China emerges with greater leverage in Arctic corridors. NATO Secretary General Jens Stoltenberg (2024): “For decades NATO didn’t address China at all. Now, China is the biggest long-term challenge Allies face.”

The U.S. treats Arctic security as Russia’s problem, Arctic shipping as an economic experiment, and China’s role as peripheral science and commerce. In reality, Sino-Russian cooperation blends Russia’s military geography with China’s financial, commercial, and political presence, creating a strategic hinge at the Bering Strait that Washington cannot fully survey, regulate, or deter. Unless the U.S. closes its capability-tempo gap, integrates China–Russia synergy into Arctic strategy, and upgrades chokepoint deterrence, it risks being structurally behind just as the Arctic becomes a central node in Indo-Pacific maritime security.

³ The Bering Strait is the Pacific’s northernmost part and separates Asia and North America, particularly Russia and the United States. It connects the Bering Sea to the Chukchi Sea of the Arctic Ocean. At the strait’s narrowest point, Asia (Russia) and North America (the US) are just 85 km apart. The narrowest point is between Cape Prince of Wales in Alaska and Cape Dezhnev in Russia.

⁴ CNPC and CNOOC: CNPC (China National Petroleum Corporation) and CNOOC (China National Offshore Oil Corporation) are two of China’s three major state-owned national oil companies, with CNPC specializing in onshore operations and CNOOC in offshore, though their roles have blurred over time. Both are integrated energy giants with global interests, but CNPC is the parent of PetroChina while CNOOC is the parent of CNOOC Limited, its main publicly listed arm.

7. INDIA'S BLIND SPOTS

India's 2022 Arctic Policy is exemplary on science, climate, and sustainability and builds on a long record of polar research (Himadri station, Svalbard; CHINARE collaborations; multi-disciplinary expeditions). The policy omits a security/economic pillar (shipping standards, logistics, insurance, and MDA), so India is influential in workshops but peripheral in decisions shaping Arctic-Pacific corridors. As NSR use and Bering Strait transits rise, rules on routing, reporting, black carbon, and undersea infrastructure are being hardened—without India's fingerprints.

Observers in the Arctic Council can influence working groups (shipping safety, environment), and technical bodies (IMO, IHO, classification societies) design the operational rulebook. India rarely tables concrete technical proposals (e.g., AIS transparency, ice-pilotage benchmarks, emissions baselines).

India's Navy and Coast Guard are capable in tropical/sub-tropical waters; polar operations demand different sensors, comms, ice navigation, and SAR postures. No dedicated high-latitude MDA track, limited participation in Arctic SAR exercises, and minimal ice-ops training. The Indian Navy and Coast Guard have little ice-navigation experience, making it hard to deploy even symbolic missions northward. Arctic AIS coverage is patchy, especially in high latitudes where satellites orbit less frequently. India has not invested in polar-orbit satellites or partnerships that would plug it into Arctic situational awareness. India has strong satellite capability (ISRO) and an operational Information Fusion Centre – Indian Ocean Region (IFC-IOR). However, there is no structured link to Arctic AIS/MDA networks or high-latitude observation systems. By contrast, China uses the Beidou satellite system and dual-use research voyages (Xuelong and Xuelong-2) to collect Arctic maritime data. This gives Beijing far greater operational literacy than India. When incidents ripple from the Bering Strait into global supply chains (e.g., LNG/containers), India lacks real-time situational awareness and responses.

Since the Cold War, India has leaned heavily on Russia (formerly the USSR) for defence procurement, nuclear cooperation, and energy security. Even today, 60–70% of India's military inventory originates from Russia. Russia is a top oil and gas supplier to India, and since the Ukraine war (2022–), India has emerged as the second-largest buyer of Russian crude, benefiting from discounted supplies. India maintains “multi-alignment,” but Moscow has long been seen as a trusted partner, including in forums like BRICS and the SCO. In the Arctic context, Russia controls the Northern Sea Route (NSR), owns the world's largest fleet of icebreakers, and manages vast Arctic LNG projects. Any non-Arctic state seeking operational influence in the region must deal with Russia, directly or indirectly. India's strategic autonomy relies on diversified energy and defence ties—Russia remains a significant partner. Sino-Russian Arctic projects (Yamal LNG, Arctic LNG-2; NSR escorts) shape corridor economics and access. India has no seat at that table yet is exposed to price and routing shocks that could propagate to the Indo-Pacific. If corridor pricing/insurance shift, India consumes rules set by others. The paradox lies in the contradictory pressures India faces:

1) Reliance on Russia for defence and energy security

- India cannot afford to alienate Russia without jeopardizing arms supplies (S-400s, nuclear submarines) and critical energy imports.
- Russia remains India's gateway if it ever wishes to have a meaningful Arctic economic or logistical presence.

2) Russia's deepening embrace of China in the Arctic

- Facing Western sanctions, Russia increasingly depends on Chinese capital, technology, and cargo flows to sustain Arctic projects like Yamal LNG and Arctic LNG-2.
- This cements a Sino-Russian condominium in the Arctic—where Chinese companies own stakes in Russian energy projects and COSCO controls growing shipping traffic.
- By branding the NSR as a Polar Silk Road, China institutionalizes its role in Arctic shipping. India's absence from such corridors means that even its Russian energy imports (like LNG) may increasingly transit through Chinese-controlled logistics chains.

3) India risks marginalization

- India's Arctic Policy (2022) focuses on science and climate but avoids hard economic or security engagement in Russia's Arctic.

- As a result, India is caught in a bind: too reliant on Russia to oppose its China pivot, but too absent in Russia's Arctic ventures to gain influence.

Thus, India's dependence on Russia constrains its ability to contest or counterbalance China in the Arctic, even though China's rise there directly affects India's Indo-Pacific security environment. Resolving this paradox means pivoting from passive reliance to active shaping—leveraging science, standards, and selective partnerships to avoid being locked out of Arctic-Pacific governance, where China is rapidly consolidating power.

8. CONCLUSION

China has gradually expanded its science-focused entry point into a comprehensive Arctic-Pacific strategy, while the United States and India remain misaligned with the tempo and character of change. The Arctic is no longer a peripheral science common—its shipping lanes, energy flows, data cables, and chokepoints (above all, the Bering Strait) now shape the resilience and risk calculus of the Indo-Pacific.

China's arc is coherent. It has layered capabilities and legitimacy—long-series research (Yellow River Station), icebreaking logistics (*Xuelong*, *Xuelong-2*), energy stakes and shipping (Yamal/Arctic LNG, COSCO transits), a governance seat (Arctic Council observer), and a narrative that normalizes non-littoral participation (the "Polar Silk Road"). Beijing's 2018 White Paper explicitly pledged to "work with all parties to build a Polar Silk Road"—a concise statement of intent to turn seasonal experiments into habits of use. In practice, that means diversifying away from southern chokepoints, embedding Arctic experience into China's blue-water seamanship, and tightening economic interdependence with Russia, the coastal power that controls the Northern Sea Route (NSR).

By contrast, the United States and India have credible aims but mismatched instruments. The United States recognizes rising competition yet suffers a capability-tempo gap (icebreaking shortfalls, patchy high-latitude maritime domain awareness), and its strategy still weights Russia more than the China-Russia synergy that blends Russian geography/escorts with Chinese finance/cargo. As Admiral Karl Schultz cautioned, "What happens in the Arctic doesn't stay in the Arctic—it is linked to the broader maritime commons." Treating Bering Strait governance as a safety problem (routing, ATBAs) without matching deterrence and resilience leaves a security seam at the hinge between theatres.

India has built real credibility as a responsible, science-driven actor (Himadri station; sustained expeditions; a thoughtful 2022 Arctic Policy), but its posture remains science-forward and strategy-light. New Delhi's Russia dependency paradox compounds the problem: India relies on Russian energy and defence ties even as Russia's Arctic projects are increasingly financed, carried and normalized with China, not India. The net effect is that India risks becoming a rule-taker in corridors that will influence shipping costs, insurance terms, and energy availability across the Indo-Pacific. As former U.S. Secretary of State Mike Pompeo warned in 2019, "China's pattern of aggressive behaviour elsewhere should inform our approach to the Arctic." That logic applies equally to partners and observers who underestimate how quickly commercial patterns harden into strategic structures. The Arctic's transformation from a remote frontier into a corridor of commerce and contest has altered the grammar of international politics. Former UN Secretary-General Ban Ki-moon called the Arctic a "barometer of climate change" but now it functions as a "*compass of global security*"—its bearing aligning ever more tightly with Indo-Pacific dynamics. China, by branding itself a "*near-Arctic state*" and operationalizing the Polar Silk Road through energy stakes, shipping regularity, and governance activism, has demonstrated that geography is no longer a barrier when technology, finance, and narrative are skilfully combined. The United States, despite a tradition of Arctic stewardship as a coastal state, lags in matching capability to ambition: a handful of operational icebreakers, uneven maritime domain awareness, and a strategic focus still more on deterrence than resilience. India, in contrast, projects credibility through its scientific contributions and multilateral diplomacy but risks remaining a peripheral player unless it translates knowledge into influence.

The path forward will demand sustained effort and coordinated commitment. A credible Arctic-Pacific strategy for both Washington and New Delhi must integrate three dimensions. First, capability parity: ice-class tonnage, domain awareness, and search-and-rescue infrastructure that close the current gaps. Second, normative entrepreneurship: actively shaping International Maritime Organization (IMO) protocols, black carbon standards, and undersea cable protections so that China's regulatory footprint is not normalized by default. Third, coalition building: coordinating with likeminded actors—Nordics, Japan, Canada, and EU institutions—to dilute the Russia-China condominium and embed plurilateral norms. For India in particular, this means leveraging its scientific prestige into a seat at regulatory tables,

investing selectively in Arctic infrastructure that avoids sanction-sensitive hydrocarbons, and treating Arctic data and climate linkages as strategic assets.

As Admiral Karl Schultz reminded in 2019, *“What happens in the Arctic doesn’t stay in the Arctic—it is linked to the broader maritime commons.”* That linkage is precisely the blind spot that both India and the United States must overcome. If they fail, China’s presence will not merely be tolerated—it will become habitual, embedded in shipping insurance practices, port state controls, and scientific narratives. If they succeed, however, the Arctic–Pacific hinge can be governed as a pluralistic, transparent, and secure corridor rather than as a Sino-Russian condominium. The choice is not between militarization and neglect; it is between rules shaped proactively and rules conceded passively. For scholars and policymakers alike, the Arctic is no longer a distant case study—it is a test of whether emerging powers and established democracies can act with foresight in a region where geography, climate, and strategy converge.

CONFLICT OF INTERESTS

Non.

ACKNOWLEDGMENTS

None.

REFERENCES

- Ban, K. (2009, September 28). Speech on climate change and the Arctic. United Nations.<https://www.un.org/sg/en/content/sg/speeches/2009-09-28/climate-change-and-arctic>
- Brady, A.-M. (2017). China as a polar great power. Cambridge University Press.<https://doi.org/10.1017/9781316832004>
- Russian Council. (2016, May 16). Circumventing sanctions: Yamal LNG becomes a precedent. Russian Council. https://russiancouncil.ru/en/blogs/tsvetko-karkalanov-en/_2472/ (see para. 2)
- Murray, W. (2021, November–December). Russia’s China gamble. *Military Review*, 101(6), 47 (describing €9.3 billion + ¥9.8 billion in long-term loans).
- Reuters. (2023, December 26). China criticizes U.S. sanctions on Russia’s Arctic LNG-2 project. Reuters Energy. [https://www.reuters.com/business/energy/china-criticizes-us-sanctions-russias-arctic-lng-2-project-2023-12-26/\(stating 10% for each company\).](https://www.reuters.com/business/energy/china-criticizes-us-sanctions-russias-arctic-lng-2-project-2023-12-26/(stating%2010%20for%20each%20company))
- High North News. (2019). Record traffic on the Northern Sea Route—COSCO completes five transits. High North News. <https://www.highnorthnews.com/en/record-traffic-northern-sea-route-cosco-completes-five-transits> (describes NSR transit surge by COSCO since 2013 and 2019 milestone).
- Conley, H. A. (2020). The new ice curtain: Russia, China, and the Arctic. Center for Strategic and International Studies (CSIS).<https://www.csis.org/analysis/new-ice-curtain-russia-china-and-arctic>
- European External Action Service (EEAS). (2021). EU’s engagement with the Arctic: Strategy and cooperation.https://www.eeas.europa.eu/eeas/eu-arctic-policy_en
- European Parliament. (2021). The EU and India in the Arctic: Opportunities for cooperation.[https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2021\)690573](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)690573)
- Government of India, Ministry of Earth Sciences. (2022). India’s Arctic policy: Building a partnership for sustainable development.https://moes.gov.in/sites/default/files/2022-03/India_Arctic_Policy_2022.pdf
- Guo, P. (2012). China’s Arctic policy: The legal and political framework. *China Ocean Yearbook*, 26, 1–22.<https://doi.org/10.1163/22116001-02601007>
- Mearsheimer, J. J. (2001). The tragedy of great power politics. W. W. Norton.[Book info: <https://wnorton.com/books/9780393323962>]
- Ministry of Foreign Affairs of the People’s Republic of China (MFA). (2019). Remarks by State Councillor Wang Yi on China’s Arctic policy.https://www.fmprc.gov.cn/mfa_eng/topics_665678/
- Pompeo, M. (2019, May 6). Looking north: Sharpening America’s Arctic focus. U.S. Department of State.<https://2017-2021.state.gov/looking-north-sharpening-americas-arctic-focus/index.html>
- Schultz, K. (2020, September 15). U.S. Coast Guard Arctic strategy remarks. U.S. Coast Guard.<https://www.uscg.mil/Arctic/>

- Shringla, H. V. (2021, March 12). India's Arctic vision. National Maritime Foundation.<https://maritimeindia.org/indias-arctic-vision/>
- State Council Information Office of the People's Republic of China. (2018). China's Arctic policy white paper.http://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm
- U.S. Geological Survey (USGS). (2008). Circum-Arctic resource appraisal: Estimates of undiscovered oil and gas.<https://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf>
- White House. (2022). National strategy for the Arctic region.<https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf>
- Young, O. R. (2019). Arctic governance: Pathways to the future. *Arctic Review on Law and Politics*, 10(1), 122–134.<https://doi.org/10.23865/arctic.v10.1323>
- China's Arctic Policy (2018): Asserted "near-Arctic state" identity and launched the Polar Silk Road.