China's Expanding Nuclear Ambitions and Strategic Challenges for India

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Introduction

Recent diplomatic engagement between the United States (US) and China has once again highlighted the paradox at the heart of contemporary global security politics. During high-level interactions between Washington and Beijing from 13-15 May, discussions focused on regional conflicts, trade disputes, Taiwan, and concerns surrounding nuclear proliferation in states such as Iran and North Korea. Yet one issue that has repeatedly remained outside the centre of formal negotiations is China's own rapidly expanding nuclear arsenal. This omission is striking because the US has, for several years, expressed growing concern regarding the scale and pace of Beijing's nuclear modernisation programme.[1]

American strategic planners and independent arms-control experts increasingly argue that China is no longer pursuing a minimalist deterrence posture. Instead, it appears to be moving toward the construction of a large and technologically advanced nuclear force, capable of competing with both the US and Russia in strategic terms.[2] The transformation marks one of the most consequential shifts in the global nuclear balance since the end of the Cold War.

Moreover, for India, Beijing's nuclear expansion carries implications that extend far beyond the broader US-China rivalry. Its growing arsenal directly reshapes India's strategic environment at a time when bilateral tensions remain high following the Galwan clashes of 2020, military infrastructure competition along the Line of Actual Control (LAC), and deepening strategic cooperation between China and Pakistan.[3]

For decades, China portrayed itself as a restrained nuclear power. Since its first nuclear test in 1964, the country consistently maintained that its arsenal existed only for defensive retaliation and minimum deterrence.[4] Chinese leaders repeatedly contrasted their doctrine with the massive stockpiles accumulated by the US and the Soviet Union during the Cold War. Unlike Washington and Moscow, China claimed it had no interest in numerical parity or arms racing. That strategic posture is now changing rapidly.

China's nuclear transformation is not merely an expansion in arsenal size. It represents a transition from a traditionally restrained deterrence posture toward a more flexible, technologically sophisticated, and potentially coercive nuclear strategy. This shift has significant implications for strategic stability in Asia because it alters deterrence relationships simultaneously at the global, regional, and sub-regional levels.

How China's Nuclear Expansion is Accelerating

Recent reports by major international research institutions reveal the extraordinary pace of China's nuclear modernisation. According to the Stockholm International Peace Research Institute (SIPRI) Yearbook 2024, China possesses approximately 500 nuclear warheads, an increase from around 410 in 2023.[5] SIPRI further noted that China is expanding its arsenal faster than any other nuclear-armed state and could potentially deploy as many Intercontinental Ballistic Missiles (ICBMs) as either Russia or the US by the end of the decade.[6]

Similarly, the US Department of Defense estimated in its 2023 report to Congress that China could possess more than 1,000 operational nuclear warheads by 2030 and around 1,500 by 2035, if current trends continue.[7] Satellite imagery analysed by the Federation of American Scientists and the James Martin Center for Non-proliferation Studies has also

revealed the construction of nearly 300 new missile silos across regions such as Xinjiang and Inner Mongolia.[8]

The significance of this expansion lies not only in numbers but also in capability. China is modernising all three pillars of a nuclear triad, i.e., land-based missiles, submarine-launched ballistic missiles, and strategic bombers.[9] The People's Liberation Army Rocket Force has deployed advanced systems such as the DF-41 ICBM, capable of carrying Multiple Independently Targetable Re-entry Vehicles (MIRVs).[10] MIRV technology enables a single missile to strike several targets simultaneously, thereby, complicating missile defence interception systems.

In addition, Beijing has invested heavily in hypersonic glide vehicles and Fractional Orbital Bombardment Systems, technologies designed to evade existing missile defence networks.[11] In 2021, reports emerged that China had tested a nuclear-capable hypersonic system capable of circling the globe before re-entering the atmosphere at high speed.[12] Such developments indicate that China's nuclear ambitions are not merely quantitative but fundamentally qualitative.

Strategic analysts also increasingly believe that Beijing may be reconsidering aspects of its long-standing 'No First Use (NFU)' and low-alert nuclear posture. Historically, Chinese nuclear forces were maintained at relatively low readiness levels. However, evidence now suggests that China may be moving toward a 'Launch-on-Warning' posture, under which missiles could be launched upon detection of an incoming attack rather than after absorbing a strike.[13] This significantly shortens decision-making timelines during crises and raises the risks of accidental escalation.

Such a transition would fundamentally alter China's traditional deterrence philosophy. A shift toward higher readiness and launch-on-warning mechanisms increases the risks of misperception, inadvertent escalation, and crisis instability, particularly in regions characterised by unresolved territorial disputes and compressed warning times such as the Indo-Pacific.

Why is China Expanding its Arsenal

Several factors explain Beijing's changing nuclear posture. First, China's leadership views the US as its principal long-term strategic competitor. Chinese policymakers argue that expanding American missile defence systems, advanced surveillance technologies, cyber warfare capabilities, and precision-strike systems threaten China's ability to maintain a credible second-strike capability.[14] From Beijing's perspective, a larger and more diversified arsenal ensures that no adversary can neutralise its retaliatory capacity.

Second, China's nuclear modernisation reflects President Xi Jinping's broader vision of 'National Rejuvenation'. Under Xi, China seeks recognition not only as an economic power but also as a comprehensive military and geopolitical superpower.[15] Nuclear weapons, therefore, serve not merely as instruments of deterrence but also as symbols of strategic prestige and great-power status.

Third, Beijing increasingly perceives the international system as entering a period of prolonged instability and competition. Chinese strategists argue that the post-Cold War order dominated by the US is weakening, and China must prepare for a more contested geopolitical environment.[16] Nuclear modernisation is, therefore, viewed as essential for securing China's long-term strategic autonomy. China's expanding nuclear arsenal may trigger wider nuclear modernisation and security reassessments across Asia, potentially increasing long-term regional strategic instability despite Beijing's deterrence objectives.

Implications for India

China's growing nuclear arsenal poses serious strategic challenges for India. New Delhi's nuclear doctrine has traditionally been based on the principle of 'Credible Minimum Deterrence'.[17] Since conducting nuclear tests in 1998, the country has maintained that it does not seek numerical parity with larger nuclear powers. Instead, India's objective has been to retain a survivable second-strike capability sufficient to deter adversaries from launching a nuclear attack.

However, China's rapid military modernisation increasingly complicates this framework. India is estimated to possess around 172 nuclear warheads, while Pakistan possesses approximately 170.[18] China's arsenal, by contrast, is already several times larger and continues to expand rapidly. The widening asymmetry creates pressure on India's deterrence credibility, particularly as China develops advanced missile defence systems, MIRV capabilities, and more survivable submarine-based deterrents. India's challenge is to sustain credible nuclear deterrence amid growing technological asymmetry and a two-front nuclear environment, as China's advances in information, surveillance, and reconnaissance, missile accuracy, surveillance, and counter-space capabilities may strengthen Beijing's confidence in counterforce operations against India's retaliatory forces.

The challenge is not merely quantitative but technological. These advances could eventually undermine India's ability to guarantee retaliation following a nuclear strike.[19] If Beijing begins to believe that it can neutralise India's second-strike capability, strategic stability in Asia could weaken significantly.

Another major concern for India is the triangular nature of Asian deterrence dynamics. Unlike the Cold War, where deterrence was largely bipolar, India confronts two nuclear-armed adversaries simultaneously, i.e., China and Pakistan. Beijing's long-standing military and technological assistance to Islamabad has already shaped South Asian strategic realities.[20] Chinese support has reportedly contributed to Pakistan's missile development programmes, nuclear infrastructure expansion, and conventional military modernisation.

The danger does not necessarily lie in deliberate nuclear war. Instead, the greater risk is the 'Stability-Instability Paradox', wherein nuclear deterrence discourages full-scale war while encouraging lower-level military aggression.[21] India's experience during the Kargil conflict in 1999 and the Galwan crisis in 2020 demonstrated how nuclear-armed rivals may still engage in limited confrontations under the assumption that escalation can be controlled.

A more confident and technologically advanced Chinese nuclear posture could, therefore, embolden coercive behaviour along the LAC and in the broader Indo-Pacific region.

India's Strategic Response

India faces a difficult balancing act in responding to China's nuclear rise. Pursuing direct numerical parity with China would likely prove economically unsustainable. India's strategic culture has historically prioritised restrained deterrence rather than arms racing.[22] Nevertheless, strategic complacency is equally dangerous.

Consequently, India is likely to pursue a three-pronged response. First, New Delhi will continue modernising its nuclear triad. India has already developed longer-range Agni missile systems capable of targeting major Chinese cities, while also investing in MIRV

technologies and nuclear-powered ballistic missile submarines such as the INS Arihant class.[23]

Second, India is expected to deepen strategic cooperation with like-minded powers including the US, Japan, Australia, and European democracies. The growing significance of frameworks such as the Quadrilateral Security Dialogue reflects shared concerns regarding China's expanding military influence in the Indo-Pacific.[24] Cooperation in maritime surveillance, intelligence-sharing, cyber security, and missile defence technologies is likely to intensify.

Third, debates within India regarding nuclear doctrine may grow sharper in the coming years. Although India officially maintains an NFU policy, several former military officials and strategic analysts have questioned whether doctrinal ambiguity could provide greater flexibility against evolving threats.[25] While no official revision appears imminent, the debate itself reflects increasing anxiety within India's security establishment.

Conclusion

China's expanding nuclear arsenal represents one of the most important strategic developments of the 21st Century. What was once considered a relatively limited deterrent force is rapidly evolving into a sophisticated and diversified nuclear capability with global implications.

For the US, China's rise signals the emergence of a third major nuclear pole alongside Washington and Moscow. For Asia, however, the consequences are even more immediate. The region is entering a new era of strategic competition characterised by hypersonic weapons, missile defence systems, AI, and increasingly compressed decision-making timelines during crises.

For India, the challenge is particularly acute and approaching rapidly than expected. New Delhi must preserve credible deterrence against a far more powerful and technologically advanced adversary, i.e., China, while simultaneously managing the persistent threat posed by Pakistan. It must modernise its capabilities without entering a destabilising arms race. It must deepen strategic partnerships without sacrificing strategic autonomy.

Most importantly, India must recognise that China's nuclear expansion is not merely a military development. It is a geopolitical declaration; a signal that Beijing seeks to reshape the balance of power in Asia and beyond.

The central question for Indian policymakers is, therefore, no longer whether China's strategic ambitions are expanding. The question is whether India can adapt quickly enough to safeguard its security and strategic interests in an increasingly unstable nuclear age.

Ultimately, the emerging Asian nuclear order is becoming increasingly multipolar, technologically complex, and less predictable than the bipolar Cold War framework. Strategic stability in such an environment will depend not only upon deterrence capability but also upon crisis communication, escalation management, and technological resilience.

Endnotes

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[1] Annual Report, "Military and Security Developments Involving the People's Republic of China", *US Department of Defense*, 2023, accessed 16 May 2026, https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF

[2] Hans M Kristensen and Matt Korda, "Chinese Nuclear Weapons, 2024", *Bulletin of the Atomic Scientists*, Vol. 80, No. 1, 2024, accessed 16 May 2026, https://thebulletin.org/premium/2024-01/chinese-nuclear-weapons-2024/

[3] Zhang Jiegen, "China-India-Pakistan Trilateral Relations amid Changing Regional Dynamics", *China-India Brief #263*, Centre on Asia and Globalisation, Lee Kuan Yew School of Public Policy, Jan 2026, accessed 16 May 2026, https://lkyspp.nus.edu.sg/cag/publications/center-publications/publication-article/detail/china-india-pakistan-trilateral-relations-amid-changing-regional-dynamics

[4] John Wilson Lewis and Xue Litai, *China Builds the Bomb*, (Stanford: Stanford University Press, 1988).

[5] Stockholm International Peace Research Institute, *SIPRI Yearbook 2024*, (London: Oxford University Press, 2024).

[6] Ibid.

[7] "Military and Security Developments Involving the People's Republic of China", *US Department of Defense.*

[8] Hans M Kristensen, Matt Korda, and Eliana Johns, "Nuclear Notebook: Chinese nuclear weapons, 2023", *Bulletin of the Atomic Scientists*, 13 Mar 2023, accessed 16 May 2026, https://thebulletin.org/premium/2023-03/nuclear-notebook-chinese-nuclear-weapons-2023/; Dr. Brian G. Carlson, "China's Growing Nuclear Capacity", *Per Concordiam*, Journal of European Security and Defense Issues, 12 Jul 2023, accessed 16 May 2026, https://perconcordiam.com/chinas-growing-nuclear-capacity/

[9] SIPRI Yearbook 2024.

[10] Kristensen and Korda, "Chinese Nuclear Weapons, 2024", *Bulletin of the Atomic Scientists.*

[11] Ritwik Gupta, "Orbital hypersonic delivery systems threaten strategic stability", *Bulletin of the Atomic Scientists,* 13 Jun 2023, accessed 16 May 2026, https://thebulletin.org/2023/06/orbital-hypersonic-delivery-systems-threaten-strategic-stability/

[12] Bleddyn BOWEN and Cameron HUNTER, "Chinese Fractional Orbital Bombardment", *Asia-Pacific Leadership Network,* 01 Nov 2021, accessed 16 May 2026, https://www.apln.network/analysis/policy-briefs/chinese-fractional-orbital-bombardment

[13] Caitlin Talmadge, "Would China Go Nuclear? Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States", *International Security (2017) 41 (4): 50–92,* 01 Apr 2017, accessed 16 May 2026, https://direct.mit.edu/isec/article-abstract/41/4/50/12156/Would-China-Go-Nuclear-Assessing-the-Risk-of?redirectedFrom=fulltext

[14] Thomas Christensen, *The China Challenge*, (New York: WW Norton, 2015).

[15] Xi Jinping, *The Governance of China*, (Beijing: Foreign Languages Press, 2017).

[16] Yan Xuetong, *Leadership and the Rise of Great Powers* (Princeton University Press, 2019).

[17] "Draft Report of National Security Advisory Board on Indian Nuclear Doctrine", *Ministry of Defence, Government of India*, 17 Aug 1999, accessed 16 May 2026, https://www.legal-tools.org/doc/70efe4/pdf/

[18] SIPRI Yearbook 2024.

[19] Ashley J Tellis, *Striking Asymmetries: Nuclear Transitions in Southern Asia*, (Carnegie Endowment for International Peace, 2022).

[20] Andrew Small, *The China-Pakistan Axis* (Oxford University Press, 2015).

[21] Glenn Snyder, "The balance of power and the balance of terror", pp. 184–201 in P Seabury (Ed.), *The balance of power*, (San Francisco, CA: Chandler, 1965).

[22] Bharat Karnad, *India's Nuclear Policy*, (Westport: Praeger Security International, 2008).

[23] Rajesh Basrur, *Minimum Deterrence and India's Nuclear Security,* (Stanford University Press, 2006).

[24] Rory Medcalf, *Indo-Pacific Empire*, (Manchester University Press, 2020).

[25] Shivshankar Menon, *Choices: Inside the Making of India's Foreign Policy*, (Brookings Institution Press, 2016).

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