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## **CISS Monthly Perspective: December 2025 | Edition-IV**

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**The Istanbul Talks and Pakistan's Afghan Dilemma:**  
**Between Peacekeeping and Border Security**  
*Shahwana Sohail*

The Istanbul talks between Islamabad and Kabul, followed by the first round held in Doha, were another effort to escalate tensions along the western borders. The talks were mediated by Türkiye and Qatar as a constructive diplomatic engagement. The dialogue exposed the reality that the circumstances have become more fragile. Since the Taliban 2.0 came into power in Afghanistan on August 15th 2021, there has been a surge in terrorist attacks from Afghan soil inside Pakistan. Pakistan showed strategic restraint and tried to engage the Taliban regime diplomatically, but the efforts remained futile. The main dilemma for Pakistan is to balance its relations with the Taliban regime and protect its territory from cross-border terrorist attacks. During the frequent rising tensions, the Istanbul dialogue started on 25th October 2025, bringing into focus that there is a need for a long-lasting agreement for peace.

The dialogue began in Doha after serious border fighting, which led Qatar and Türkiye to bring both countries back to the table. Both sides agreed to stop fighting for two days on 15 October, and it was widely reported at the time. But the ceasefire ended quickly. Fighting started again in North Waziristan, Spin Boldak and Chaman, stopping trade and making it harder for people to earn. The second round was to implement the Doha agreement, but the Taliban avoided taking any tangible measures against terrorist operatives and tried to back out of the commitments they had undertaken during the first round of negotiations. However, Pakistan stayed firm on its core demand of concrete actions against terrorist activities in Afghanistan and established a strong monitoring mechanism to curb their activities.

During the third round in Istanbul on 28th October, Islamabad engaged again with a constructive approach to focus on the establishment of an effective monitoring mechanism. The Afghan side tries to dilute the focus from the main issue of terrorism and refuses the external oversight of the militant areas, arguing that it would be an interference in their sovereignty. Pakistan strongly rejects assertions and insinuations by the Taliban when the UN reports clearly show that terrorist groups are freely operating from the Afghan territory. The Taliban regime should honour its commitment not to allow its territory for terrorist activities and play its role in achieving peace and stability in the region. Tehreek Taliban Pakistan (TTP) and other militant groups continue launching attacks

inside Pakistan from Afghan territory. The Istanbul talk ended without any agreement on the border issues and militancy. Hence, the dialogue did not fix the major issues behind the conflict.

Due to long-standing political and structural issues, the peace process is facing challenges. The first important challenge is the misinterpretation between the two states. The Taliban regime misinterprets the Pakistani terrorists in Afghanistan as refugees. After Pakistan's operation Zarb e Azab in 2015, TTP terrorists fled to Afghanistan and set up their camps there, but the Taliban refuses to hand them over to Pakistan and claims they cannot control them. Afghanistan claims Pakistan is making the threat look bigger than it is and failing to manage its border. The situation worsens because some of the worst attacks in Pakistan recently were carried out by terrorists operating from Afghanistan. One big example is the blast at the Counter Terrorism Department (CTD) mosque in Peshawar Police Lines. In which more than 80 people were killed, and the attack was traced back to the TTP fighters in Afghanistan.

The next challenge is that Pakistan is sceptical of the Afghan government's will to curb the evil of terrorism. Taliban's hesitation in taking concrete actions against the TTP shows a lack of willpower to stop acting against the TTP and its affiliates. Taliban's avoidance of dealing with the main issue of terrorism shows their inability to stop TTP attacks on Pakistan from Afghanistan soil. Afghanistan should translate their MoFA statements into practical implementations within its country by destroying the growing terrorist groups on its soil.

The other big challenge is that it affects the local economies and people. The outbreak of the shelling on the border trade comes to a halt. It forces families to evacuate their houses, and the already weak border economy becomes more unstable. The October violence closed trade routes and forced people to flee their homes. Pakistan, which is already struggling with economic challenges lost of border trade has deepened its problems. The ongoing instability endangers Afghanistan's already weak economy and makes it difficult to govern properly.

For moving ahead, Pakistan and Afghanistan need a clear and realistic strategy. They should initiate collaborative monitoring and regular transparent intelligence exchange. With the help of Qatar and Türkiye, Pakistan and Afghanistan can run a joint system, which leads both countries to track the militant activities without damaging Afghanistan's sovereignty. There is already an example of outside help, like Qatar and Türkiye; external support is not new.

Modern technology must be used to improve border security. Pakistan's fences have reduced illegal crossings but have not fully stopped militants from entering. Using a mix of surveillance tools and quick response teams can significantly block militants from crossing. Pakistan needs to maintain its current security operations, including success in Hassan Khel, and at the same time engage in diplomacy. Islamabad would negotiate but must draw clear red lines to protect its sovereignty. The cooperation between both states will increase when they recognise that conflict harms them more than compromise. The Istanbul dialogue didn't resolve the conflict, but it clarified more options for future decisions. Achieving stability will need strong political will, accountable actions and gradual trust building. Whether the two sides move toward cooperation or confrontation depends on their commitment to the next steps.

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**Link:** <https://stratbeia.com/the-istanbul-talks-and-pakistans-afghan-dilemma/>

**From National Regulator to Global Partner:  
How PNRA Is Shaping Pakistan's Role in Global Nuclear Governance**

*Anam Murad Khan*

The evolution of the global nuclear order necessitated shared responsibility for effective nuclear governance. With the emergence of nuclear energy as a reliable source addressing global challenges and contributing to the United Nations' Sustainable Development Goals (SDGs), states had to expand their role beyond the supervision of internal matters. Engagement, collaboration, and leadership in nuclear stewardship became inevitable. Following the course, the Pakistan Nuclear Regulatory Authority (PNRA) also joined the international league and became an internationally recognized nuclear governance partner, in addition to its domestic responsibilities.

Pakistan Nuclear Regulatory Authority (PNRA) was created in 2001 through Ordinance No. III. This ordinance vested independent powers to the authority by dissolving the former regulatory bodies, Pakistan Nuclear Regulatory Board (PNRB) and Directorate of Nuclear Safety and Radiation Protection (DNSRP). PNRA's statute encompasses licensing, inspection and enforcement across all the nuclear lifecycle. The regulation of the Nuclear Power Plants (NPPs) (K-1, K-2, K-3, C-1 to C-4), research reactors (PARR I-II), isotope production facilities, waste management and spent fuel storage facilities were given to PNRA as its mandate. Its role transcends mere monitoring of human resource and emergency preparedness to the compliance of safety and security standards established by the International Atomic Energy Agency (IAEA). For that, its regulations PAK/914, PAK/925, and PAK/926 ensure licensing, joint inspections, management of databases and centralized emergency coordination through the National Radiation Emergency Coordination Centre (NRECC).

Besides its statutory mandate, PNRA productively contributes to the global nuclear workforce. It trains national participants from the IAEA member states at the National Institute for Safety and Security (NISAS). The efforts of NISAS in imparting responsible nuclear knowledge were recognized when the IAEA designated it as an IAEA Collaborating Centre. PNRA is a member of the IAEA safety standard committees e.g. the Nuclear Safety Standards Committee (NUSSC), Waste Safety Standards Committee (WASSC), Nuclear Security Guidance Committee (NSGC), Commission on Safety Standards (CSS), Transport Safety Standards Committee (TRANSSC), and Radiation Safety Standards Committee (RASSC). PNRA also shares regulatory guidance and operational best practices at esteemed international forums such as the Global Nuclear Safety and



Security Network (GNSSN) and the Asian Nuclear Safety Network (ANSN). Its experts serve as reviewers for the Integrated Regulatory Review Service (IRRS) missions as well.

PNRA is striving to ensure functioning and operation of all nuclear facilities in the peaceful uses of nuclear energy and establish its credibility internationally through regulating complex infrastructure. Recently, it granted a license for the construction of the National Institute for Conservation of Environment (NICE), which is the first low-level radioactive waste disposal facility of Pakistan. The facility is said to store research and medically related radioactive material. Chairman PNRA remarked that the approval was given after a thorough and rigorous examination, which is compliant with the international standards. The construction of NICE reflects the ability of PNRA to regulate a long-lived and complex nuclear technology in compliance with the global standards.

PNRA has also transitioned from being a domestic nuclear regulator to an international standard-setting example. The authority's experts not only actively engage with the IAEA but also review and contribute to the IAEA-led international safety standards, waste management, and safety and security of the nuclear installations. Through voluntary organization of several peer missions and technical contributions, the authority demonstrated its sheer resolve to strengthen the global nuclear regulatory regime and pursue benchmarks. PNRA has become a compliant regulator and contributor to the global nuclear safety and security agenda.

In the recent past, the authority has expanded its role as a global nuclear security partner. PNRA and IAEA entered into a new Country Programme Framework (CPF) in September 2025, which will span over 2026-2031. This high-impact development further puts nuclear security and safety as national-level priorities besides their peaceful use. The agreement also outlines that cooperation is the key to nuclear safety agendas. These include emergency preparedness, sophistication of regulatory technologies, and waste management, against the backdrop of emerging and disruptive technologies. Such developments mark that Pakistan is not only at the receiving end of global nuclear security but also an equal stakeholder who defines the international benchmarks.

The consolidation of Pakistan's domestic nuclear security standards and setting them at par with the international standards was also manifested in the recent conduct of the ConvEx exercise. This exercise demonstrated international emergency preparedness and was being hosted for the first time by Pakistan. It was also the materialization of the international trust, as this exercise is

entrusted to the countries with robust and international-level nuclear safety and security standards. IAEA also praised the National Radiation Emergency Coordination Center (NRECC) of Pakistan, being a nuclear safety and security standard for the states. These developments reflect international trust in the transparency and competence of PNRA.

Besides multilateral and global partnerships, PNRA brings home the best practice through bilateral collaborations as well. PNRA is an active member of the IAEA's technical cooperation projects by sharing nuclear safety-related databases and contributions to the advisory missions. The authority has been actively engaged with the National Nuclear Safety Administration (NNSA) of China. PNRA also has a Memorandum of Understanding (MoU) with the Nigerian Nuclear Regulatory Authority (NNRA) for the capacity building of the latter's staff. Through these collaborations, the authority contributes its insights and vast experience to the global and regional players to strengthen the global nuclear safety standards.

PNRA is cognizant of the emergence of new challenges in the wake of technological advancements in the nuclear field. Advanced nuclear reactors and digital sophistication pose novel challenges to the regulatory regimes. The CPF (2026-2031) will enable both Pakistan and the IAEA to stay ahead of these challenges and keep pace with digital analytics and artificial intelligence to advance nuclear safety and security. Through the publication of guidelines, exchange of data, and joint meetings, the authority ensures the real-time surveillance of nuclear installations.

PNRA is positioning to not only cope with the emerging threats but also to keep the edge by intercepting them. The exceptional journey of PNRA expands far beyond its institutional responsibilities. It demonstrates the image of Pakistan as a responsible nuclear state. It also contributes to the global nuclear safety and security practices through bilateral and multilateral cooperation. This journey underscores that a domestic regulator can become an international success story. It also manifests that Pakistan is a forward-looking stakeholder in the global nuclear governance that attained global trust through performance. The success also offers a powerful insight that with the technological rigor and right intent, states can become global leaders in using the nuclear technology in a safe and secure manner.

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***Link: <https://strategicforecast.cissajk.org.pk/?p=23076>***

**India's Joint Doctrine for Cyberspace Operations:  
Implications for Crisis (In)Stability in South Asia**

*Fakhar Alam*

India's Chief of Defence Staff (CDS) has released a Joint Doctrine for Cyberspace Operations (JDCO) during the Chiefs of Staff Committee meeting in August 2025. According to the Indian Ministry of Defence (MOD), the doctrine is aimed at outlining a national unified approach to defend India's cyberspace interests while integrating defensive and offensive capabilities in synergy across all services of the Indian Armed Forces. This article analyzes key aspects of JDCO, including its operational objectives, the tools envisioned to achieve operational objectives and the types of operations the doctrine aims to conduct. Together, these analyses highlight the doctrine's broader implications for the crisis (in)stability in South Asia.

The prime objective behind JDCO 2025 is to create a synergy between different legs of the Indian army, including land, air, sea and space, to produce an integrated response aimed at retaining its own freedom of action and denying the adversary's freedom of action in cyberspace. The doctrine clearly envisions the development of a Credible Cyber Defensive Posture with the availability of both offensive and defensive cyber capabilities. The JDCO only focuses on the military aspects of cyberspace with the vision to establish Cyber Space Superiority during a crisis. It also acknowledges that any cyber-attack conducted in synergy or to support a conventional attack by an adversary will be considered as an armed attack on India and will be responded accordingly.

The doctrine states that the biggest utility of cyber power is its use as a weapon of information for cognitive operations and perception management. In the second chapter, under the heading of types of cyber operations, the doctrine lays out a detailed plan about Cyber Enabled Influence Operations. The document states that this type of operation involves deliberately using information to confuse and mislead the adversary to influence its choices as well as decision-making. To do that, it would involve the weaponization of information as a means for social engineering. The doctrine particularly highlights that social media platforms would be used to demoralize, paralyze, subvert, confuse and distract the adversary nation. It also envisioned that tools like deep fakes, bots and fake news will support the eventual weaponization of social media platforms to successfully conduct a Cyber Enabled Influence Operations.

A study shows that the public tends to believe rumors on social media more than real news. Repeatedly flowing of false information on media platforms results in the illusory truth effect. This effect can be described as people start considering false information as true if they are repeatedly exposed to false information start considering that false information as true. A similar phenomenon was observed during the post-Pahalgam India-Pakistan crisis, where a rumor regarding an Indian attack on Pakistan's underground nuclear facility at Kirana Hills spread fast over media platforms.

The illusory truth effect of these false events was so effective that, eventually, the military spokespersons from both sides had to officially deny these rumors. So, when the doctrine talks about the weaponization of information, it deliberately means employing a disinformation campaign. Such operations could be designed to undermine the people's trust in national institutions, creating political division, undermining the credibility of the armed forces or the military capabilities, and causing chaos among the masses.

Given India's track record since Narendra Modi took office, false flag operations are justified as a pretext to launch an attack on Pakistan, evident from the February 2019 and May 2025 crises. What if the Indian military, under the Cyber Enabled Influence Operation, produces a deep fake of Pakistan's Prime Minister or higher military leadership like Director General Inter Services Public Relations (ISPR), saying that Pakistan has initiated a strike against India or a particular Indian nuclear facility or nuclear storage depot, and injects this deep fake into social media during a crisis? And India, as usual, uses that video as a rationale to launch a missile towards Pakistan. Or an Indian military commander, after watching that video, launches, in patriotic emotion, a missile towards Pakistan, without official orders, like Brahmos was launched in March 2023.

Presently, from the masses to the political and military elite, everyone is embedded in and influenced by the social media ecosystem. It shapes narratives, influences the psyche and impacts rational decision-making. Employing a well-crafted disinformation campaign during a crisis can influence military or political leaders on either side to take aggressive action, leading to catastrophic outcomes. India's JDCO, if practiced during a crisis, would not impact only the digital realm; rather, it has equal potential to create disastrous kinetic impacts in the physical domain.

Disinformation campaigns supported by AI and tools like deep fakes, bots and fake news on social media platforms can have detrimental effects. Therefore, in a nuclearized region, JDCO can result in inadvertent escalation and further deteriorate already fragile crisis stability in South Asia.

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***Link:*** [https:// thegsinsight.com/ indias-joint-doctrine-for-cyberspace-operations-implications-for-crisis-instability-in-south-asia/](https://thegsinsight.com/indias-joint-doctrine-for-cyberspace-operations-implications-for-crisis-instability-in-south-asia/)

**Nuclear Energy in the 2025 NSS:  
A Policy Correction or the Strategic Reawakening?**

*Anam Murad Khan*

Nuclear energy has moved to the core of American strategic thinking, from being merely a peripheral climate policy tool to a central strategic concern. This manifests a strategic reawakening that aims to redefine the US role in a world surrounded by AI-driven, increased energy demands, supply chain pressures, and heightened geopolitical competition. The recently released National Security Strategy (NSS) 2025 encompasses the core national interests, the guiding principles, and the means at disposal to achieve them. It encompasses American national priorities, including military strength, technological leadership, and regional strategies across the Western Hemisphere, Asia, Europe, the Middle East, and Africa. NSS 2025 not only highlights the importance of a reliable energy source but also its geopolitical potential to influence foreign partnerships. The strategy has significantly broadened the scope of nuclear energy, moving beyond nuclear deterrence and nonproliferation to frame nuclear energy as a tool of geopolitical competitiveness and national resilience.

**Why is American nuclear energy reawakening now?**

NSS 2025 integrates nuclear energy into a pillar of national stability from a reduced segment of the climate portfolio. Amidst the fragile supply chain of electricity, the consumption of data-centers is expected to rise by 165 per cent by 2030. Characterized by its low interruption rates, nuclear energy is capable of delivering high-output baseload electricity. This equation is complicated by America's 72 per cent export of enriched uranium and its competitors, Russia and China, amounting to 43 per cent and 16 per cent, respectively, of the global uranium enrichment capacity. The long-held US leadership in innovation and export capacity has eroded due to its slow-paced regulatory framework and domestic political ambivalence. In contrast, with the construction of 37 reactors in the last decade, China is expected to surpass the US nuclear power reactor fleet by 2030.

**The geopolitical relevance of nuclear energy**

The geopolitical structure of nuclear energy stands on three pillars. First, it creates a long-term dependency, forming a partnership of 40-60 years, where the host country depends on the supplier for regulation, maintenance and training etc. Nuclear fuel supply is another factor that buttresses

the geopolitical symbiosis between the host and the supplier states. In the absence of a stable nuclear fuel supply and uranium enrichment cooperation, not even advanced reactors can function. The second dependence factor is the benchmark or standard setting that eventually also defines the technical and regulatory framework of the nuclear supply markets. For instance, all four reactors being constructed between 2017 to 2024 are either of Russian or Chinese design, and the former is building 19 reactors worth \$200 billion abroad. This significantly helps them sustain the geopolitical influence of these discrete commercial activities. The last factor is the nuclear energy financing scheme, where the favorable options are those with high capital available. Together, these factors are making nuclear energy strategically relevant.

### **The efficacy of the NSS 2025 Plan – comparative analysis with the past plans**

A comparative analysis of the US National Security Strategies over the decade unveils a significant evolution in the role of nuclear energy in American strategic thought. The NSS 2010 confined the role of nuclear energy in mitigating climate change efforts. The energy was supposed to be ‘developed in a safer manner’ while ensuring the safety through ‘regulatory bodies and training of operators.’

The NSS 2015 was more grounded in nonproliferation concerns and reflected the challenges that marked those years. The document linked the peaceful uses of nuclear technologies under a ‘comprehensive and verifiable deal that assures Iran’s nuclear program is for peaceful purposes.’ NSS 2017 retained the hyphenation of peaceful nuclear technology as a means of constraining adversaries rather than a tool for socioeconomic development. However, it clearly indicated the American thought reassertion of leadership and to ‘improve America’s technological edge in energy, including nuclear technology, next generation nuclear reactors, better batteries, advanced computing, carbon-capture technologies.’

Even without being an NSS document, the 2021 Interim Guidance by the Biden administration sustained the use of nuclear technology as a lever of strategic influence. What makes NSS 2025 distinctive is the strategic orientation of nuclear energy. The document explicitly frames it as a tool of energy dominance, industrial competitiveness, and geopolitical positioning. It mentions that ‘restoring American energy dominance (in oil, gas, coal, and nuclear)’ and US energy exports are centered on curbing the geopolitical influence of its adversaries and deepening alliances. Another interesting aspect is the special mention of economic engagement in the regions of Africa and the

Middle East, which will be based on nuclear energy exports. Exclusive mention of switch from ‘aid-focused relationship to.... investment-focused relationship’ and signals development of ‘US-backed nuclear energy...’ to leverage strategically. Unlike previous documents, it clearly adds multiple dimensions to nuclear energy where it is used to shape foreign affairs, strengthen domestic capabilities, mitigate global threats, and integrate with emerging technologies.

When combined with the statistical forecasts, the latest NSS enunciates the strategic reawakening of America in nuclear energy. All this is going to happen in the backdrop of a ‘shrinking nuclear energy ecosystem’ where projections indicate that nearly 256 nuclear reactors, producing 240 GW, will retire by 2050, creating a replacement gap. This change will coincide with the peak electrification, data-driven demand, and international climate milestones. Realizing the potential, the NSS 2025 identifies key markets and investor opportunities to realize the future of the US.

### **The logic behind the exclusive mention of Africa and the Middle East in NSS 2025**

Special emphasis on the regions of the Middle East and Africa in terms of nuclear cooperation further reflects American aspirations of resurgence in the nuclear energy export markets. These regions are rapidly working on energy diversification and industrial modernization to meet the increasing demand for electricity. Their limited landmass, coupled with biodiversity factors and water stress, makes nuclear energy the best option available for them. To demonstrate, even a giant nuclear plant of 1000 megawatts take less area and is a more environmentally sustainable option than other sources, as solar or wind.

Rebranding American Nuclear Diplomacy American rebranding of nuclear energy diplomacy requires a detailed examination of America’s standing in the global nuclear reactor fleet. By 2024, the global nuclear reactor fleet exceeded the average age of 30 years. Whereas nuclear energy faces the ever-growing demand for energy and climate commitments. To meet them, let alone dominating the nuclear energy lines, domestic strategies alone would not suffice. It requires international collaboration on global nuclear safety and harmony in regulatory frameworks. Concomitantly, it requires domestic feasibility credibility, which seems quite unrealistic in the US.

The nuclear workforce in the US should triple by 2050 to meet these lofty goals, yet the number of nuclear engineering graduates was a 20 per cent drop in 2022 from peak levels. Investment in human capital is also important in parallel to regulatory capacity and diplomatic ambitions,



although strict immigration policies are likely to negatively impact it. The global nuclear energy market is likely to be constrained by ageing fleets and fuel supply dependence, which decreases the chances of market hoarding but intensifies the competition. Within the competitive market, the risk of fragmentation of nuclear security standards, operational risks and climate commitments risks being undermined. The competitive edge is determined by execution speed and the depth of the nuclear infrastructure. By way of demonstration, the completion of the US nuclear projects Vogtle 3 and 4 is likely to take 15 years, and exceed \$35 billion, compared to the Chinese timeline of an average of 7 years and Russia's being 8 years. These gaps underscore the need for US forward-looking strategies to safeguard its strategic advantage in nuclear energy that is durable, cooperative in frameworks and operationally stable.

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***Link:*** <https://www.middleeastmonitor.com/20251221-nuclear-energy-in-the-2025-nss-a-policy-correction-or-the-strategic-reawakening/>

## **The Indian Air Force Quest for Modern Fighter Jets and Their Dilemma**

***Saad Riaz***

On 27 February 2019, the Indian Air Force (IAF) engaged in an air battle with Pakistan, resulting in the loss of several aircraft. The IAF was outmanoeuvred during the air battle, as it was unable to anticipate the magnitude and accuracy of the response by the Pakistan Air Force (PAF). The Indian leadership acknowledged the lack of operational capability and the absence of modern aircraft. A week later, Prime Minister Modi said that “the nation has felt the absence of Rafale; if we had it, the outcome would have been different”. In 2020, in line with their ambitions, the IAF had procured 36 Rafale jets from France. The IAF assumed this acquisition would bridge its capability gap; however, that belief proved to be illusory when it again faced setbacks against the PAF during the May 2025 air battle, reportedly losing six to seven aircraft. These losses were accepted by the IAF when their spokesperson said, “Losses are part of combat.”

The IAF, despite having one of the largest fleets, failed to provide air superiority against the numerically inferior PAF. This is one of IAF’s modernisation challenges, squadron and pilots’ shortages, ageing aircraft, and its reliance on foreign equipment, which were exposed when the IAF faced the PAF in 2019 and 2025. Despite procuring the French-made Dassault Rafale and putting them into service in 2020, the outcome was still devastating. Some reports suggest that they need at least 42 squadrons, around ~220 aircraft to bridge its original gap. This analysis highlights the IAF’s persistent challenges in procuring and developing indigenous fighter jets, while also examining the prospects and limitations of potential acquisitions such as the F-35, Su-57, Rafale and homegrown Tejas.

IAF received its Rafale squadron in 2020, despite the deal being signed in 2012 under the Multi-Role Fighter Aircraft (MRFA) programme. However, the Indian government had to abandon this deal due to corruption allegations and increasing stakes. Furthermore, Dassault refused to transfer some of the critical technologies and technical information to Hindustan Aeronautics Limited (HAL). As per the deal, IAF was supposed to receive 126 jets with an option of 63 additional jets. However, it received only 36 fighter jets, without receiving the essential technologies, further weakening its broader indigenisation agenda.

Similarly, the May 2025 conflict further exposed the IAF’s vulnerabilities. A number of factors, including Intel failure, lack of coordination, poor data integration, and persistent weapon

integration issues, may have led to the downing of the Indian jets. Reports even suggested that the IAF had requested the source code shortly before the operation. This renewed systemic concerns and raised serious questions about IAF's operational effectiveness, undermining its capability and credibility. The question then arises: How will India fill these gaps? Will it buy new aircraft or pursue indigenous development, despite overdue deliveries and delayed defence deals?

In February 2025, U.S. President Donald Trump offered India the F-35, a jet usually reserved for America's most trusted allies. India was considering the deal, but again, the cost per unit is around \$80-110 million, excluding maintenance costs. Considering this, the Indian authorities realised that the export version of the F-35 would further aggravate issues, such as the risk of remote-controlled systems being bugged via electronic signals, which could effectively zero out their combat capabilities. Similarly, it wasn't aligning with their indigenisation agenda, so it was rejected.

Russia, on the other hand, has offered two to three squadrons of Su-57 to India with full weapon integration and its expected exportation under the "Made in India" route. But the issue with Russia's fifth-generation aircraft is that New Delhi is insisting that Russia must replace key fighter jet components, including Byelka Radar, with DRDO's GaN-based Uttam Radar. This raises reliability concerns about Sukhoi's stealth capability, and Russia's analysts found it unacceptable. Russia's Su-57 is neither an inexpensive aircraft nor does its maintenance cost run lower. But its per-unit cost is relatively lower than the F-35, which ranges around \$35-50 million. If India finalises a deal with Sukhoi, it would only be able to purchase two to three squadrons of Su-57, while it needs at least ten new squadrons to replace the older fleet.

Sukhoi has proposed a joint venture which would allow India to develop its first fifth-generation aircraft at Hindustan Aeronautics Limited (HAL). This joint venture is only meant for weapons integration and "access to source code," but India's insistence on replacing critical radar and communication systems remains uncertain. Therefore, there is still no final confirmation regarding the Su-57 deal, as it carries several technical issues and numerous challenges, such as a lack of supercruise capabilities, stealth issues, and limited combat experience.

Similarly, a deal with Dassault for the transfer of 114 Rafale fighter jets is on the table to replace the ageing aircraft and fill the qualitative and quantitative gaps. However, the Indian Defence Ministry has not yet approved the plan, as it is currently under review, which could overcome the squadron deficiency. The proposal further envisions local production under a joint venture with

Dassault Aviation. But it also poses challenges, as there is no confirmation regarding the “source code,” as French Dassault has initially refused to provide it.

The IAF plans a large-scale induction of indigenous fighters alongside foreign acquisitions. The plan envisions replacing older fleets with 120–150 Tejas MkI variants and inducting around 180 Tejas MkII units. But the consistent delays and recent crashes have made Tejas an unreliable aircraft, which even the IAF chief has said, “I’m just not confident of HAL”. Especially after the Tejas crash at the Dubai airshow sent a stark signal of an unreliable frontline jet. In parallel, the IAF has proposed acquiring at least 114 Rafale jets and considering the procurement of two to three squadrons of Su-57 from Russia. Collectively, these measures are intended to strengthen IAF capabilities but will take years to be finally inducted into the service.

The proposed expansion may not significantly alter the balance and allow India to maintain air superiority, as it is facing numerous challenges. For Islamabad, the IAF expansion may not affect the balance, as it has focused on expanding its JF-17 program and strengthening its fleet with J-10C aircraft. Furthermore, the Turkish Aerospace Industry (TAI) and PAF are collaborating for the development of the KAAN fifth-generation fighter jet. The Pakistan government has also confirmed the acquisition of J-35 stealth fighter jets from China. If it acquires, it will become the first state in South Asia to deploy fifth-generation aircraft. The IAF currently faces a dilemma between home-grown and foreign aircraft, particularly the LCA Tejas, the Su-57, and the Rafale. It recognises that foreign dependencies can affect its operational efficacy, but the HAL is not capable of developing the “Made in India” jet. The only option that remains for them is to go with foreign equipment, which would increase their operational readiness but could compromise their national security.

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***Link:*** <https://ipi.org.pk/the-indian-air-forces-quest-for-modern-fighter-jets-capability-gaps-and-strategic-dilemmas/>

## **The Emerging World Order in 2026: Fragmented, Militarised, and Unequal**

*Anum A. Khan*

The contours of the emerging world order are neither stable nor rules-based. Instead, they are increasingly shaped by contested narratives, regional asymmetries and increasingly fragmented technological ecosystems. This shifting landscape reveals widening incongruities in global governance, deepening geopolitical rivalries, minilaterals, as well as erosion of multilateralism at a time it is needed most. The war in Ukraine and genocide in Gaza, the paralysis of the UNSC, the breakdown of arms-control mechanisms, and the weaponization of emerging and disruptive technologies collectively demonstrate that the old order is crumbling and without a coherent replacement.

### **Ukraine, Iran, Selective Principles, and the Erosion of Western Legitimacy**

The Ukraine war is an example of lack of resolution of dispute through dialogue and diplomacy. In fact, the Russia-Ukraine war marks a dangerous departure from diplomatic crisis-management norms. It has seen the selective application of international law by major powers. The Western powers tried to coerce Russia by providing military assistance to Kyiv, imposing sanctions, and organizing Moscow's diplomatic isolation. Nevertheless, the same states show little commitment to confront equally grave humanitarian disasters when their allies are involved.

Most of the Global South refused to align fully with the Western position on Ukraine. Because of military-nuclear exceptionalism, the Global South's position on Ukraine signals a return of dissatisfaction as well as strategic autonomy vis-à-vis the West. Majority of states across Africa, Asia and Latin America have underscored the urgent need for diplomacy rather than bloc politics for resolving the Russia- Ukraine crisis.

Furthermore, the unprovoked Israeli and US strikes on Iranian nuclear facilities further eroded trust in Western rule-based order. It shows that the Western-led order is applied inconsistently, undermining their own claims to leadership. This reality is driving the return of multipolarity, a development seen with favour by the large majority of states, including Pakistan.

## **Gaza: Collapse of Multilateral Credibility**

Israel's war on Gaza, seen as genocide, has further exposed the crisis of the rules-based order. Since 2023, Israel has bombed and killed tens of thousands of Palestinians while Palestine has been pushed to the brink of famine. The US has, time and again, vetoed UNSC resolutions to put an end to Israeli atrocities.

The perception of Western double standards has never been more visible. While Russia -Ukraine case is condemned for Ukraine, there is a blind eye towards Israel's war on Gaza. The UN and other multilateral bodies are going through a phase of paralysis which is an indication of the weakening international institutionalism. It results in the sidelining of collective multilateral mechanisms by states, in turn, adoption of unilaterals or minilaterals. This attrition is reinforced by an expanding global anti-globalist paradigm, raising serious questions about the legitimacy of the liberal international order itself.

## **U.S.-China Contestation and the Weaponisation of Peaceful Development**

Another defining feature of the new order is the attempt to reduce China's peaceful economic rise to a security challenge only. Though the US National Security Strategy 2025 terms China as an economic rather than strategic rival, many in China do not view the shift in language necessarily as a retreat. Similarly, the US is further restricting its semiconductor and AI export controls while also pressurizing Netherlands and Japan to restrict chip-making equipment's export to China to counter China's AI tech development.

On the other hand, the US does not allow access of Artificial Intelligence (AI) to certain countries, while exporting semiconductor and AI-enabled technologies to India. This is done through initiatives including 'U.S.-India AI Initiative', 'Initiative on Critical & Emerging Technology (ICET)' among others. The bifurcation of technology into competing blocs especially in AI, cyber capabilities and semiconductors risks pulling developing countries into rival spheres. Pakistan's challenge will be navigating these tech-blocs when India continues to benefit from preferential access to AI, nuclear and military deals.

The power dynamics in the global world order are changing. While past powers combined economic and military might, Chinese rise is focused on economic interdependence as a responsible stakeholder rather than a revisionist power.

### **India's Militarisation and Western Support: A Rising Regional Imbalance**

The emerging order is also shaped by India's accelerated militarization, often enabled by Western states, seeking to bolster New Delhi as a counterweight to China. India's acquisition of advanced missile systems, expanding naval capabilities and access to emerging technologies either bilaterally or through minilaterals (QUAD, I2U2 etc.) bolsters India as a regional hegemon. Through its integration in U.S.-led Indo-Pacific architectures, it attempts to use its military and nuclear capabilities vis-à-vis Pakistan. Indian atrocities in Indian Illegally Occupied Jammu and Kashmir (IIOJ&K), earlier false flag operations and the May 2025 short war reflect Indian aggressive posture towards Pakistan. Nevertheless, the onus of restraint and responsibility is always put on Pakistan. Such calls often turn a blind eye towards growing regional disparities as a result of Western exceptionalism, thereby impacting strategic stability in the region – an outcome Pakistan views with deep concern.

### **Arms Control Breakdown and the Return of Great-Power Nuclear Militarism**

In the current geo-strategic landscape, nuclear weapons are returning to center of global strategic thinking. This return is manifested in the suspension of the New START Treaty (expiring in Feb 2026) and the US expansion and modernization of its nuclear weapons programme. This has tilted the world toward an unconstrained global nuclear order. Moreover, Indo-US nuclear deal also has cascading effects on regional instabilities.

The risks of miscalculation grow – even more than at any point since the Cold War. It is due to modernization of nuclear arsenals including dual-use delivery platforms, hypersonic weapons, autonomous systems, and AI-enabled command and control. The Integration of EDTs including AI in military domain are bringing about the doctrinal shifts of nuclear weapon states. These systems do not only minimize decision making time but may also introduce further ambiguity within threat perception calculus of states with adversarial relations. Furthermore, the line between civilian and military intent has been blurred due to the acquisition of digital and dual use technologies. Such dual use technologies have made easier the concealment, acquisition,

modernization and proliferation of sensitive capabilities. This, in turn, has fueled the possibility of a global arms race(s) amid suspension of global arms control measures.

When EDTs diffuse in the region, they further intensify regional rivalries especially within five nuclear flashpoints which include Gaza, Ukraine, Taiwan Strait, Korean Peninsula and Kashmir. In such scenarios, there is a greater possibility of states becoming hedgers because of uncertainties concerning their security. States opt for nuclear hedging through acquiring latent nuclear capabilities which may include preferring uranium enrichment, spent fuel reprocessing or naval propulsion systems. This allows them to stay closer to the breakout point and serves as a virtual deterrent vis-a-vis their adversaries. This also allows them to stay within the compliance of the nuclear non-proliferation regime (NPR) while simultaneously preserving strategic options. Such latent capabilities are also used as bargaining tools to extract concessions as well as security guarantees.

In the meantime, global nuclear governance is unable to keep pace with rapid technological changes. This makes verification and safeguard mechanisms, inspections and export-control lists fall behind maturation of EDTs, further increasing gaps in non-proliferation and disarmament. This is, overall, an unstable and unequal landscape where the norms, institutions, and guarantees of the old order are collapsing but no credible alternatives have yet emerged. The new world order is already upon us: contested, uneven, and increasingly shaped by the technologies and rivalries of great powers. In the Global South, Pakistan, as a leader, will need to work with diplomatic agility, strategic clarity and its long-standing commitment to principled multipolarity.

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***Link: <https://www.thefridaytimes.com/30-Dec-2025/emerging-world-order-2026-fragmented-militarised-unequal>***



## **India's Pakistan Centric Rail-based Agni-Prime Test: Implications for South Asian Strategic Stability**

*Fakhar Alam*

Indian Defence Research and Development Organisation (DRDO), in collaboration with the Strategic Force Command (SFC), has successfully test-fired the Agni-Prime missile from a rail-based mobile launcher. The tested missile could carry a payload to a distance of 2000 kilometers (Km), making it a Pakistan-centric missile system. This article analyzes the technical features of the rail-based Agni-Prime missile to assess its operational advantages. It also explores the implications of those advantages for the strategic stability of South Asia.

This newly tested missile's most prominent and novel feature is the rail-based mobile launching platform. This provides Agni-Prime with the cross-country mobility of around 70000 Km. Unlike road-mobile systems, a rail-based launcher offers enhanced mobility across the national grid while allowing greater concealment and operational flexibility, particularly under the guise of civilian infrastructure. Therefore, the rail-based mobility factor significantly improves the pre-launch survivability of the deployed system and reduces its vulnerability to an adversary's attack. However, during the Cold War, mutual vulnerability of strategic assets was considered one of the prerequisites for deterrence stability between America and the Soviet Union. It was a bilateral understanding that the mutual vulnerability of the strategic forces disincentivizes either side from taking bold actions and therefore produces a credible deterrent.

Simultaneously, the press release published by India's Ministry of Defence (MOD) claims that the recently tested two-staged solid propellant, next-generation, medium-range Agni-Prime is cannisterised. This implies that the warhead will be mated and stored with the missile system; therefore, it will reduce the time required for missile preparation and missile launch, particularly during a crisis. Moreover, the canisterization also indicates the Indian shift towards a hair-trigger alert posture. The hair-trigger alert posture significantly compresses the decision-making time and increases the risk of escalation. It also increases the risks of accidental launch or even rapid missile launch in response to false warnings. In South Asia, where missile flight time is very short and mutually agreed lines of communication are mostly inactive during a crisis, a hair-trigger alert posture could produce disastrous outcomes for crisis stability.

Moreover, the previously tested Agni Prime missile had a dual-redundant navigation and guidance system. However, no information was given regarding the navigation and guidance system of the recently tested version. The dual redundancy of navigation and guidance systems means that in

case one of the navigation or guidance systems fails, either due to the system's failure or by an adversary's countermeasures, the other navigation or guidance system will continue to guide the missile to its designated target. States invest heavily in improving navigation, guidance, and associated technologies and systems across their missile inventory to achieve pinpoint accuracy and reduce Circular Error Probability (CEP).

Likewise, the earlier tested version of Agni-Prime had 10 meters of CEP, while the CEP of the recently tested rail-based version is not publicly declared by the Indian MOD. However, experts are of the view that it has either the same or less CEP compared to the earlier tested one. A smaller CEP of a strategic asset, enabled by an advanced, state of the art, dual redundant navigation and guidance system, makes it a potential system for precision strikes. Particularly, when India is simultaneously investing heavily in augmenting its intelligence, surveillance and reconnaissance (ISR) capabilities. This precision strike capability, along with rapid deployment capability in a crisis, makes rail-based Agni-Prime a counterforce pre-emption targeting option.

India's recent test would definitely aggravate Pakistan's security dilemma. Pakistan, which has faced a conventional asymmetry vis-à-vis India along with a continuous threat of a limited offensive against itself under the nuclear overhang, would feel further threatened by this strategic development. This development might compel Pakistan to take the necessary measures to preserve the regional strategic balance disturbed by India. These measures could be either countermeasures aimed at denying the operational advantages that rail-based Agni-Prime enables India or the development of a similar capability to deter India by re-establishing mutual vulnerability and reciprocal deterrence. Therefore, this test has equal potential to augment a new arms race as well in South Asia.

Traditionally, the deployment of rail-based launch systems was aimed at strengthening the country's second-strike capability. During the Cold War, it was the Soviet Union that, for the first time, deployed a rail-based launcher capability. Later, America also started the project for its rail-based launching systems. In contemporary times, along with the US and Russia, only North Korea and now India have officially declared rail launch capability. Moreover, the press release clearly says that the successful launch from a rail-based system has paved the way for the integration of other missile systems with a rail-based launching system. Therefore, India might soon integrate and test fire some other nuclear-capable missile systems from a rail-based launcher, which would create further challenges for the region.

South Asia's strategic stability is already under grave stress and demands more transparency among nuclear armed adversaries through Confidence Building Measures (CBMs). The May 2025 crisis

has already unfolded that the region lacks active crisis management mechanisms. This crisis has also revealed that within a few hours, two nuclear-capable neighbors could resort to nuclear weapon use, and the bilaterally decided communication channels are not activated until intervened by a third party. In such an environment, testing of a rail-based launcher increases the trust deficit, demands countermeasures, challenges crisis stability, undermines deterrence stability, which all in turn produce challenges for the strategic stability of South Asia.

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***Link:*** <https://cscr.pk/explore/themes/defense-security/how-rail-based-agni-prime-challenges-stability-in-south-asia/>

## **Is it India behind the Murder of Osman Sharif Hadi?**

*Fakhar Alam*

Osman Sharif Hadi, a young, influential Bangladeshi activist, was murdered recently in Dhaka. Being an active member of Inqilab Mancha (Platform for Revolution), Osman played a central role in the August 2024 youth-led pro-democracy protests against Indian backed autocratic regime of Sheikh Hasina Wazed. The deceased was an outspoken critic of India and its regional hegemonic designs. Osman's confidants believe that India is involved in his murder and even Bangladeshi authorities have claimed that the main culprits behind the murder are in India. The following analysis details India's extra-territorial and extra-judicial killings and explores whether India has a role in the killing of Osman Hadi.

India has a long record of extra-territorial and extra-judicial killings, while the Hardeep Singh Nijjar murder case is at the top of the list. Hardeep, a Canadian national, was an active member of a Sikh separatist movement, Khalistan. The Indian government was not happy with Hardeep's ideology and his activism. From 2010 onwards, the Indian government accused him of planning violent activities in India. Even the Indian government officially requested the Canadian government to take action against him. The Canadian government did not take any substantial action against him because of unsatisfactory evidence provided by India. However, in 2023, Nijjar was murdered in a well-planned and well-executed attack. Initially, his close family and friends maintained that it was India behind his murder. A few days later, Canadian Prime Minister Justin Trudeau claimed that his government had concrete proof of the Indian government's involvement in the murder of Hardeep Singh. Later, the Royal Canadian Mounted Police (RCMP) announced the arrest of three Indian nationals who were also charged with first-degree murder and conspiracy in connection with Nijjar's murder and the claim made by the Canadian Prime Minister proved right.

Interestingly, a few months after Nijjar's murder, an Indian intelligence officer, Vikash Yadav, was accused by the United States (US) Justice Department of planning a plot to kill a US Citizen and Sikh separatist activist, Gurpatwant Singh Pannun. India was very much bothered by Gurpatwant Singh and his activism for Khalistan and even requested the American administration to take action against him and his associated organization. However, Washington did not take any action due to a lack of substantial evidence given by New Delhi for the alleged activities. The main mastermind of the plot, Vikash, was an ex-Central Reserve Police Force (CRPF) officer and later joined the Research and Analysis Wing (RAW). He was allegedly working for the RAW along with another Indian national when he planned the murder of Gurpatwant.

Similarly, in January 2024, Pakistan's Foreign Secretary, in a media briefing, accused India of orchestrating extra-territorial killings of two Pakistani citizens, Shahid Latif and Muhammad Riaz, on Pakistan's soil. According to Pakistan's Ministry of Foreign Affairs (MOFA), Indian agents recruited, financed and supported criminals, terrorists and unsuspecting civilians from Pakistan to play defined roles in these assassinations. Pakistan's foreign secretary told the press that Indian intelligence officers, Yogesh Kumar and Ashok Kumar, planned and executed these murders from a third country. However, Pakistan's government did not release any details about the murdered nationals.

In the case of Bangladesh, India seeks to maintain its influence over Dhaka primarily due to its easy access to its northeastern states via the Siliguri Corridor, also known as the Chicken Neck. So, New Delhi can effectively curb and counter a large number of long-standing ethnic and separatist movements in its northeast. It is an open reality that India extensively backed Sheikh Hasina's autocratic regime for more than 15 years and even her predecessor regimes, to smoothly and effectively deal with separatists in its northeast.

Now, after Hasina's ouster with a widespread youth protest, demarcated forces were becoming strong and anti-India voices were rising in Bangladesh. Elections were announced and Osman was also campaigning for the upcoming elections for a constituency in Dhaka. During his election campaigns, he was very critical of India, particularly against what he characterized as the Indian policy of supporting a non-democratic puppet regime in Bangladesh and having hegemonic designs in the region. He used to frame the struggle for democracy in Bangladesh as being fundamentally linked to the removal of all external influences, specifically of India. Osman was also a strong supporter of Greater Bangladesh, and a few hours before Osman was shot, he shared the map of Greater Bangladesh on his social media platforms. That map showed Indian regions, including West Bengal, Tripura, Assam (especially Barak Valley / Sylhet-connected regions), parts of Meghalaya, parts of Bihar and Jharkhand as part of Bangladesh. In post-Hasina Bangladesh, Osman's popularity was rising mainly due to pro-democratic and anti-India stance, as it represented the true sentiments of the majority of Bangladeshi people.

Given this momentum, Osman was widely expected to secure a decisive victory in the February 2026 elections. Therefore, a young and popular leader in Bangladesh's parliament who openly challenged India's hegemonic and expansionist designs, with support from the masses, would have posed a strategic challenge to New Delhi. The growing anti-India narrative could reduce Bangladesh's overall political support to New Delhi in the region, as it had already started after Hasina's ouster. Resultantly, it would have become more challenging for New Delhi to maintain a

compelling presence and counter separatist movements in the northeast, particularly when there is little political support from Bangladesh. Moreover, in a press briefing, Bangladeshi police recently claimed that two Indian nationals helped the murderers to cross the border from Haluaghat sector, Bangladesh, into Meghalaya, an Indian state. However, the Indian Border Security Force (BSF) has rejected Bangladesh's claim.

The circumstances surrounding Osman's assassination warrant closer scrutiny and further investigations are underway as the main culprits behind Osman's murder are yet to be captured. However, when Osman's murder is viewed in the context of India's documented history of extra-judicial and extra-territorial killings aimed at safeguarding perceived national interests. Particularly, given the Indian compulsion to have Dhaka on board to effectively control separatists in the northeast and Osman's growing popularity, specifically due to Anti-India sentiments. The likelihood of Indian involvement in Osman's murder becomes stronger.

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***Link: <https://blog.ciss.org.pk/is-it-india-behind-the-murder-of-osman-sarif-hadi/>***

## **Pakistan's Perspective on the US National Security Strategy 2025**

*Amna Saqib*

The United States National Security Strategy (NSS) 2025 represents a noticeable tightening of Washington's global footprint. Unlike earlier approaches of integration broader values, global crisis-management ambitions and ideological commitments, the NSS of 2025 is a defined set of national priorities that focus on domestic economic recovery, migration control, hemispheric consolidation and selective external engagement.

Despite the fact that South Asia has a peripheral position in the document, the changes that are embedded in this strategy will determine the nature of the strategic environment in which Pakistan will conduct its policy choices. The most notable feature of the NSS 2025 is that it minimises international commitments in favour of enhanced domestic foundations.

The document clearly puts the renewal of America's industrial base, defence production capacity, supply-chain resilience and energy dominance at the center of national power. Washington's domestic-first policy has strategic implications for regions like South Asia, where states have traditionally balanced their defence and diplomatic decisions with the sustained security and diplomatic footprint of the US. This published NSS document specifies that the US will be more selective in its strategic resources and how it expends strategic resources by foregrounding an internal industrial strength and requiring reciprocal and not open-ended partnerships.

The framing of China in the present strategy is equally important. While the NSS 2025 views China as the main strategic competitor of the US, yet it also focuses on economic instruments, such as industrial policy, supply-chain security, export controls, investment screening and technological standards, as the main source of competition. Although deterrence in the Asia-Pacific remains a stated priority, the document avoids the ideological or military-forward tone seen as observed in previous strategies.

For Pakistan, this is important as it reduces pressure to align with any bloc, thereby, helps preserves strategic space for cooperation with both China and the US. However, the interest of NSS in securing global supply chains, including critical minerals, might overlap with the new emerging role of Pakistan in minerals development, which will have to be attentively diplomatized.

This NSS is also an indicator of a change in US expectations within Europe and the Middle East. Europe is characterised as a region that has to take central responsibility for its own security, where the US will carry a more supportive yet restricted role. Washington's engagement in the Middle

East has been reduced to functional interests of energy security, counterterrorism, migration and regional stability as opposed to long-term political or military oversight.

For Pakistan, which maintains close diplomatic, labour and security relations with the Gulf, this provides additional space. As the US reduces its day-to-day management of regional affairs, Gulf states can pursue more diversified partnerships, which could allow Pakistan to forge closer security ties and economic collaboration without having to navigate the constraints of an overbearing American regional agenda.

Among the most decisive aspects of the NSS was that it placed domestic industrial revival as the primary pillar of the US strategy. This emphasis on reshoring, production resilience and the development of defence industry can change the American defence partnerships. To India, which is expecting deeper military-technology cooperation with Washington, the shift brings uncertainty: the emphasis on domestic production implies a more reciprocal framework than automatic patronage.

The NSS does not minimize the role of India, but no longer presents New Delhi as the linchpin of the US 'Indo-Pacific strategy'. Also, unlike earlier US strategic formulations that hinted at India's regional security role, this NSS evades assigning India an explicit responsibility for regional order or burden-sharing. This distinction shifts the tone. In the case of Pakistan, this may help in easing previous apprehensions about externally shaping regional imbalance and strengthens its view that stability in South Asia is more likely based on balanced deterrence and autonomous regional power equations rather than external guarantees.

The second significant structural factor, which the NSS 2025, and many regional commentaries, have not given significant attention to the American focus on migration as a threat to national security. The policy introduces unrestricted migration as a systemic challenge to national security and outlines extensive interventions in border management, deportation and hemispheric defence. It may also be directly relevant to Pakistan, which harbors a substantial number of Afghan refugees and is central to the humanitarian and migration flows originating in Afghanistan. These US hardening towards migration will influence visa regimes, aid flows, negotiations of refugees and the political environment facing displaced Afghans, issues that directly challenges the domestic and regional security calculus of Pakistan.

Equally, the hemispheric doctrine of the NSS, which focuses on securing Western Hemisphere security and restricting opposing influence over it, indicates a shift in the US priorities regarding its resources and efforts. As Washington focuses inward and westward, its bandwidth to play its



role in crises, including South Asia will be limited. One important caveat is that Indian actions can still trigger crisis instability, and with frail bilateral mechanisms and the absence of sustained dialogue, even small incidents can escalate rapidly. This places greater responsibility on regional states to maintain crisis stability and it benefits strong bilateral mechanisms as opposed to depending on US intervention.

The structural outcome of this positioning could accelerate the emergence of multipolarity. The US, by scaling down its global ambitions and forward deployments, may inadvertently give regional powers more space to build influence. In South Asia, this strengthens strategic autonomy as the guiding principle for states to balance between China, US and the emerging alignments. For Pakistan, a multipolar environment that is rooted in non-alignment and issue-based cooperation is less threatening to the stability of the region compared to the bloc politics that have traditionally increased the security vulnerability of South Asia.

Although India's long-term rise may be a structural reality determined by the demographic weight, the economic scale and global integration, NSS 2025 neither accelerates nor guarantees it. Instead, the strategy is based on the fact that the path of India is conditional upon its own economic and political decisions as opposed to being ensured with external sponsorship. In the case of Pakistan, the rational response would be to increase the technological modernisation, stabilise its economy, diversify its partnerships and consolidate its credible regional deterrence.

The NSS 2025, then as viewed through the prism of Islamabad, may be regarded as correction: a move towards American restraint, realism and acknowledgement of the limitations of global engagement through militarization. The paper doesn't make India a unilateral formal regional guarantor in the region, nor does it frame alliances in ways that compel states to adhere to rigid geopolitical alignment, and it also minimizes ideological than previous US foreign policy.

This realigned approach may provide Pakistan with diplomatic and strategic manoeuvre space in South Asia, in the Gulf and in the broader Asia-Pacific to seek a balanced external engagement and strengthen long held policies of multipolarity, non-bloc alignment and regional equilibrium.

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***Link:*** <https://policyeast.com/pakistans-perspective-on-the-us-national-security-strategy-2025/>

## **PNRA Strengthening Pakistan's Nuclear Future**

***Maryyum Masood***

With Pakistan increasing its civil nuclear program to achieve long term requirements of energy, one of the central questions arises. Is this growth sustainable in Pakistan without jeopardising the security of its people, its reputation internationally and without taking strategic risks? To a large extent, the solution lies with the Pakistan Nuclear Regulatory Authority (PNRA). Within a short span of twenty years, the PNRA has established itself as the backbone of the civil nuclear regime of Pakistan and has established the parameters within which the programme can be safely expanded.

The nuclear profile of Pakistan is evolving. New power reactors are operational or in the process of construction. The spread of radiation technologies in the field of medicine, industry and research is going on. The nuclear facilities are moving towards digital systems and networked controls. This expansion is reflected in statistics. Pakistan currently has six nuclear power plants under IAEA safeguards, with a total capacity of over 3530 MW, compared to only 1,300 MW in 2017. Over 30 cancer-treatment centers in oncology alone utilize controlled equipment of radiation therapy in addition to the Pakistan atomic energy commission (PAEC) cancer care network. These changes render the role of PNRA more strategic than administrative.

PNRA regulates the nuclear sector of Pakistan. Its license is mandatory in every nuclear power plant, research reactor, industrial radiography equipment and medical radiation facility. The licensing process spans the entire life cycle of a facility. PNRA assesses the site, the design, the construction, the commissioning tests and finally the operating performance. This is demonstrated by the licensing of the new Hualong One reactors in 2024. Before issuing the construction approval, PNRA inspected their passive safety measures, hi-tech accident-management systems, and cybersecurity system. Its examination of K-3 prior to its commercial operation in 2023 contained about 312 planned, announced and reactive inspections. The processes align Pakistan with the way regulators in the United Kingdom (UK), China and South Korea license modern plants.

When a plant is operational, the work does not cease. PNRA inspectors perform planned and unannounced inspections, as well as specialised inspection of digital control rooms, reactor cooling and emergency diesel generators. Each year, PNRA receives and processes hundreds of

operational reports in which minor incidents and near-misses are monitored. These data are used in risk-based inspection schedules, whereby more emphasis is given to higher-risk trends and not box-checking. In cases of poor performance, PNRA can impose corrective measures on the spot, limit operations or withdraw licenses. This deterrent effect is significant since operators are aware that PNRA has employed enforcement mechanisms in the past such as closure of unsafe radiology units and the dismissal of industrial radiography licenses.

In addition to the power plants, 2024 PNRA annual report shows that it controls 7543 radiation facilities in Pakistan. In 2024 alone it had carried out 2909 regulatory inspections on medical facilities. Such inspections have minimized the number of regulatory violations and increased compliance rates in radiology clinics, in which PNRA data indicates major progress in shielding practices and staff radiation monitoring in the past decade. This work is rarely shown in headlines but it has a direct influence on everyday life in the hospitals, construction sites, and industrial facilities.

Another fundamental area is emergency preparedness. PNRA operates the National Radiation Emergency Coordination Centre (NRECC) that serves as the national response centre to any nuclear or radiological event. It works with the plant operators, provincial authorities and health services to deal with nuclear and radiological emergencies. The center is also connected with Pakistan meteorological and environmental monitoring systems in order to monitor the plume dispersion in the event of an accidental release. In 2024, Pakistan hosted National Radiation Emergency Exercise (NREE-2024), and an IAEA ConvEx-2c exercise. ConvEx-2c was designed to evaluate the response arrangements in transnational radiological or nuclear events. The exercise was a test of national decision-making under elements of time pressure, cross-agency communication and real-time data sharing. Response of PNRA during the exercise demonstrated that interagency coordination was improved, which was also mentioned by the IAEA observers.

PNRA guarantees that civil nuclear programs in Pakistan are in line with the safeguards and transparency protocols demanded by its accords with IAEA. The civilian nuclear power programme of Pakistan including all power reactors and declared research reactors is under the IAEA safeguards. PNRA allows inspection, material accounting and reporting. The initial decision to place the Karachi units under safeguards was a deliberate policy decision which proves the separation of the civil and military domains.

Pakistan is signatory to the international conventions and treaties such as Convention on Nuclear Safety, Convention on the Physical Protection of Nuclear Material and its Amendment, Convention on Early Notification of a Nuclear Accident, Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, and adheres to IAEA Code of Conduct on the Safety and Security of Radioactive Sources. Furthermore, its updated physical protection regulation, PAK/925, is well aligned with IAEA's INFCIRC/225/Rev.5 guidelines, which are generally recognized as a reference standard covering security of nuclear and radiological materials. Also, the regulation of PNRA, PAK/925 and related regulatory guidelines (e.g., PAK/926), include references to cyber security measures in protection of nuclear and radiological material.

The IAEA's 2022 Integrated Regulatory Review Service follow-up mission found that Pakistan had implemented all 13 recommendations from its 2014 review while also addressed 29 out of 31 suggestions, significantly strengthening its regulatory framework. In its 2020 index, Nuclear Threat Initiative listed Pakistan as the most-improved among the countries possessing weapons-usable nuclear materials, citing the great strides in regulatory frameworks, particularly in physical protection, cybersecurity and insider-threat prevention. According to NTI, Pakistan improved its overall score by seven points. NTI indicated that Pakistan has gained seven points in its aggregate score.

A credible nuclear future also depends on people. PNRA has made a significant investment to develop human capital. Its National Institute of Safety and Security (NISAS) has now become a regional training centre. Since its designation as an IAEA Collaborating Centre in 2022, NISAS has expanded its training portfolio, hosting national and regional courses on radiation safety, physical protection, emergency response and nuclear security. Through its regulatory cooperation with Nigeria, where PNRA provides training and technical support, Pakistan is increasingly contributing to nuclear safety and regulatory capacity-building across the Global South.

Public engagement is becoming another pillar of PNRA's work. It conducts awareness seminars on radiation safety, runs training for hospital technicians, and publishes guidance documents in accessible language. It has begun to move toward structured public consultation for new power projects, especially for environmental impact assessments. In 2024, PNRA and the IAEA conducted a national workshop on communication during nuclear emergencies. The focus was on ensuring factual, steady communication during crises, a challenge for any state in the era of fast-moving information and online speculation.

Looking forward, PNRA faces a more complex risk environment. Reactors are increasingly becoming digital. Climate stresses may affect water availability and site suitability. Global supply chains for nuclear equipment are becoming more competitive and less predictable. A regulator that stands still will fall behind. A regulator that adapts early can reduce these risks and support responsible growth.

PNRA appears to understand this. It is incorporating risk-informed approaches into inspections, modernising digital licensing systems, updating regulations in line with new IAEA standards, and strengthening institutional memory as senior experts retire. These are quiet reforms, but they will shape how Pakistan manages nuclear issues in the 2030s and beyond.

Pakistan's civil nuclear future is not only about generating power. It is about building a system that is safe, secure and predictable. As PNRA marks its anniversary this year, its trajectory shows how regulatory strength has become one of Pakistan's most important nuclear assets. The demands on the regulator will rise as the programme grows. Sustained political backing, resources and autonomy will matter as much as any new reactor.

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***Link:*** <https://strategicforecast.cissajk.org.pk/?p=23050>

## Info Brief: Indian Naval Modernization

*Kashif Malik & Saad Riaz*

The evolving character of modern warfare and rapid technological advancements have driven a transformation in military affairs. In this context, contemporary navies are modernizing to retain control of the high seas and dominate critical maritime choke points. Similarly, the Indian Navy has the same intention. It aims to strategically weaponise the Indian Ocean to control choke points and critical passages.<sup>i</sup> Their maritime development and advancement simultaneously undermine Pakistan's maritime interests. India appears to be seeking to challenge Pakistan's maritime interests by leveraging advanced naval technologies. This posture was observable during the May 2025 conflict, when the Indian Navy tried to attack Pakistan's mainland from the waters.<sup>ii</sup> However, Pakistan's Naval presence and continuous patrolling effectively deterred the Indian Navy. In the aftermath of the May conflict, the Indian Navy has accelerated the modernization of its fleet, particularly to enhance its capacity for amphibious landings and operations against Pakistani territory.<sup>iii</sup> The Indian intention can be reiterated from the Indian Defence Minister Rajnath Singh's statement regarding Sir Creek, where he threatened Pakistan with serious consequences. Furthermore, the Indian Chief of Defence Staff (CDS) also stated that "the Indian Navy is commissioning warships or submarines every forty days." This reflects India's shifts in its strategy and potentially calibrating the sea denial strategy against Pakistan.<sup>iv</sup>

This info brief provides details on the Indian Naval Budget from 2015 to the present. Table II provides brief details on potential acquisitions, developed systems, and underdeveloped systems for the Indian Navy in the near term and over the coming years.

### Indian Naval Budget

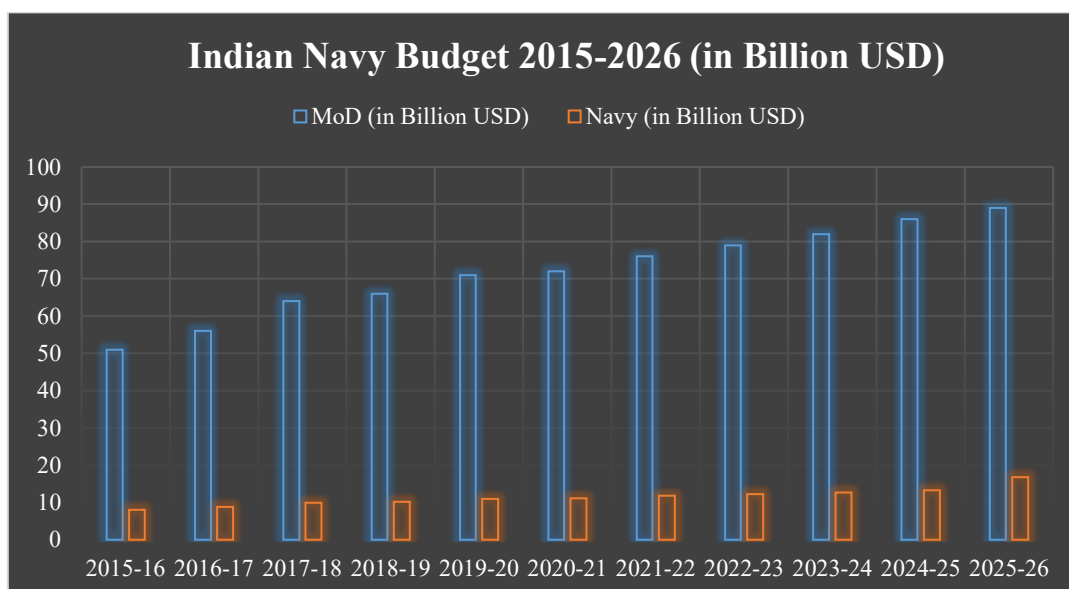
For almost a decade, the Navy's share of the total defence budget remained relatively constant at around 15.47%. Recently, a significant surge has been observed in the Indian Naval budget. This year, the share has increased sharply, rising to 18.9%, indicating a substantial boost in India's Naval spending.

Table I represents the total defence spending and the navy's share.<sup>v</sup>

**Table I**

Fiscal-Year	Indian Defence Spending (in Billion USD)	Indian Navy Total (in Billion USD)	Indian Navy Share %
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2015–16	51	8	15.47
2016–17	56	8.79	15.47
2017–18	64	9.90	15.47
2018–19	66	10.2	15.47
2019–20	71	10.98	15.47
2020–21	72	11.14	15.47
2021–22	76	11.76	15.47
2022–23	79	12.22	15.47
2023–24	82	12.68	15.47
2024–25	86	13.30	15.47
2025–26	89	16.82	18.9



*The following table lists planned acquisitions, potential deployments, and under-construction systems scheduled for deployment in the near future or within 5 to 10 years.*

*The data for the table has been retrieved from the following sources.<sup>vi</sup>*

Name	Class / Type	Status	Commissioned	Weapons & Capacity
<b>Naval Base</b>				
<b>INS Varsha</b>	Secret Submarine Base in the Eastern Naval Command	Under Construction	Expected to be operational in 2026	<ul style="list-style-type: none"> <li>Potential capacity to house twelve SSBNs and SSNs.</li> <li>This includes INS Arihant, Arighaat and Aridhaman.</li> </ul>

	Headquarters at Visakhapatnam			
<b>INS Aravali</b>	Inland Naval Base, Western Command	Operational	September 2025	<ul style="list-style-type: none"> <li>• Strategic significance, close to the International Maritime Boundary Line (IMBL) with Pakistan</li> <li>• Provides support to the Offshore Patrol Vessels (OPV) and Fast-Attack Craft.</li> </ul>
<b>INS Jatayu</b>	Southern Naval Command in the Lakshadweep Archipelago	Operational	March 2024	<ul style="list-style-type: none"> <li>• Monitor Sea Line of Communications (SLOC) for Intelligence, Surveillance and Reconnaissance (ISR).</li> <li>• Dornier Do-228 (Naval Variant) deployed for ISR and Maritime Patrolling.</li> </ul>
<b><i>Surface Capabilities (Ships)</i></b>				
<b>INS Vishaal</b>	IAC-3 Vikrant-Class Aircraft Carrier	Planned	Underdevelopment	<ul style="list-style-type: none"> <li>• Conventional Propulsion System</li> <li>• Catapult-Assisted Take-Off But Arrested Recovery (CATOBAR) and Electro-Magnetic Aircraft Launching (EMAL) Systems</li> <li>• Potentially carrying 40-50 aircraft, which include Fixed and Rotary Wings.</li> </ul>
<b>Next Generation Corvette</b>	Anti-Surface Warfare (ASuW) Class Corvettes	Planned	Finalized in 2025	<ul style="list-style-type: none"> <li>• OTO Melara 76 mm Super Rapid Gun Mount (SRGM)</li> <li>• AK-630M CIWS</li> <li>• 24 Barak VIII</li> </ul>



				<ul style="list-style-type: none"> <li>Vertical Launching System (VLS) Capability (BrahMos Missile System)</li> <li>Anti-Ship Missile-Medium Range</li> <li>Quad 533 mm Torpedo Tubes (Varunastra)</li> <li>VSHORAD Anti-Drone System.</li> </ul>
<b>Next Generation Missile Vessels (NGMV)</b>	ASuW Class Corvettes	Planned	Underdevelopment	<ul style="list-style-type: none"> <li>Six to be developed,</li> <li>Brahmos Anti-Ship Cruise Missiles (ASCM)</li> <li>Vertical Launch-Short Range Surface-to-Air Missiles (VL-SRSAM) and</li> <li>Very Short-Range Air-Defence (VSHORAD) Anti-Drone Systems.</li> </ul>
<b>Anti-Submarine Warfare Shallow Water Craft (ASW-SWC)</b>	Mahe Class, Abhay Class and Kamorta Class Vessels for Sub-Surface Operations	Planned: Total 16, 5 active, and 11 in the development phase	Underdevelopment	<ul style="list-style-type: none"> <li>RBU-6000 Anti-Submarine Rocket Launcher</li> <li>Equipped with the Advanced Light Weight Torpedo (ALWT)</li> <li>Anti-Submarine Mines using Mine-Laying Rails,</li> <li>Guns include the Naval Surface Gun (30 mm) and the OFT 12.7 mm M2 Stabilised Remote Controlled Gun.</li> </ul>
<b>Project 11356 (Talwar Class Batch)</b>	Talwar-Class Frigates	Under-Induction/Sea Trails	Underdevelopment	<ul style="list-style-type: none"> <li>Brahmos ASCM</li> <li>Shtil-I Surface-to-Air Missiles (SAM)</li> <li>Radars include, Garpun-B I-Band Surface Search</li> </ul>

<b>IV- Frigates)</b>				<p>Radar, MR-212/201-1 I-Band Navigation Radar.</p> <ul style="list-style-type: none"> <li>• MR-90 Oreh Fire-Control System (for Shtil-1)</li> <li>• BEL Hull Mounted Sonar Array (HUMSA) NG</li> <li>• Platform for Ka-28/Ka-31 Helicopters.</li> </ul>
<b>Project 18- Class Destroyer</b>	Next-Generation Destroyers	Planned	To be commissioned in 5-10 years	<ul style="list-style-type: none"> <li>• Total 144 VLS cells and 8 Slant Launchers</li> <li>• Surface to Air Missiles (SAM) Kusha and Barak 8 system,</li> <li>• Cruise Missiles include Nirbhay Subsonic, BrahMos Supersonic and potentially BrahMos II Hypersonic Missiles,</li> <li>• Anti-Submarine Missile (SMART Missile).</li> </ul>
<b>Project-17 A</b>	Guided Missiles Nilgri-Class Frigates, INS Udaygiri and INS Himgiri, Commissioned in 2025, 3-4 are underdeveloped	Operational	January 2025 (Nilgri-Class), August 2019 (Udaygiri and Himgiri Commissioned)	<ul style="list-style-type: none"> <li>• VLS, for 32 Barak 8 SAM,</li> <li>• 8-cell VLS for 8 BrahMos Anti-Ship Missiles</li> <li>• Triple-tube Torpedo Launchers for Torpedo</li> <li>• Torpedo Advanced Light Shyena</li> <li>• RBU-6000 Anti-Submarine Rocket Launchers.</li> </ul>
<b>Project-17 B</b>	Stealth and Next-Generation Frigates to be	Planned	Later in 2025 or earlier in 2026	<ul style="list-style-type: none"> <li>• Potential acquisition of 7-8 Stealth Guided Missile Frigates</li> </ul>

	equipped with Guided Missiles.			<ul style="list-style-type: none"> <li>48 VLS cells, which might include Barak 8 SAM, Nirbhay Subsonic Cruise Missile and BrahMos Supersonic Cruise Missile.</li> </ul>
<b><i>Sub-Surface Capabilities (Submarines)</i></b>				
<b>Project-75I</b>	AIP Conventional Submarines (SSKs)	Planned	-	<ul style="list-style-type: none"> <li>Next generation SSKs</li> <li>Fuel-based cell and Scorpène AIP tech.</li> </ul>
<b>INS Kalvari (SSK)</b>	Kalvari-Class Conventional Submarine	Operational	December 2017	<ul style="list-style-type: none"> <li>Six Scorpène Class Conventional Submarines.</li> <li>INS Kalvari, INS Khanderi, INS Karanj, INS Vela, INS Vagir, INS Vagsheer.</li> </ul>
<b>INS Arihant (SSBN)</b>	Arihant-Class Nuclear-Powered Ballistic Missile Submarine (SSBN)	Operational	Commissioned August 2016	<ul style="list-style-type: none"> <li>4 VLS tubes (can carry K-15 Sagarika SLBMs or fewer longer K-4s)</li> <li>K-15 (700–750 km); K-4 (3500 km).</li> </ul>
<b>INS Arighaat (SSBN)</b>	Arihant-Class (SSBN)	Operational	Commissioned August 2024	<ul style="list-style-type: none"> <li>4 VLS tubes, which can carry K-15 and K-4 SLBMs.</li> <li>K-4 tests from Arighaat in 2024.</li> </ul>
<b>INS Aridhaman S4 (SSBN)</b>	Arihant-Class (SSBN)	Under Sea Trials	To be commissioned in 2026	<ul style="list-style-type: none"> <li>8 VLS tubes</li> <li>Could carry 24 Missiles, including K-15 Sagarika (700-750 Km), K-4 (3500 km) and K-5 (6000 Km).</li> </ul>
<b>S4* (SSBN)</b>	Next Generation Arihant-Class (SSBN)	Planned	Expected induction in Mid/Late 2026	<ul style="list-style-type: none"> <li>K-6 MIRV and K-4 SLBMs</li> <li>~533 mm Torpedo Tubes.</li> </ul>

<b>INS Chakra-III</b>	Akula-Class (Russian SSN) Nuclear-Powered Attack Submarine	Planned, lease signed in 2019	But Not Delivered Yet	<ul style="list-style-type: none"> <li>• Nuclear-powered Submarine armed with conventional weapons (Torpedoes, potential Kalibr Missiles after refit).</li> <li>• Can be used for Anti-Surface Operations in the Indian Ocean.</li> </ul>
<b>Nuclear-Powered Attack Submarines (SSN)</b>	Project 75-Alpha (SSNs)	Planned	Planned to be commissioned by 2036	<ul style="list-style-type: none"> <li>• Will be equipped with BrahMos-2/Nirbhay Missiles</li> <li>• Six SSNs to be developed under this programme.</li> </ul>
<b>S-5 Class (SSBN)</b>	Advanced SSBNs	Planned	Construction to begin in 2027	<ul style="list-style-type: none"> <li>• Three are to be developed</li> <li>• 12-16 VLS</li> <li>• Equipped with K-5 and K-6 and expected K-7 and K-8 (to be developed till 2035).</li> </ul>
<b><i>Air-Capabilities (Aircraft)</i></b>				
<b>P-8I</b>	Poseidon Maritime Patrol Aircraft (MPA), Anti-Submarine Warfare (ASW)	Operational	Since 2009, four were given in 2016, and 6 more are to be provided.	<ul style="list-style-type: none"> <li>• Advanced Electronic Warfare (EW) systems</li> <li>• MAC Sonar, GaN EO/IR systems</li> <li>• Enhanced SATCOM, AIP optimised acoustics</li> <li>• 129 A-size Sonobuoys</li> <li>• AI-driven CCR and Petabyte Fusion.</li> </ul>
<b>MH-60R Seahawks</b>	ASW and ASuW Operations	19 Operational	Five more to be delivered	<ul style="list-style-type: none"> <li>• Capable of performing Anti-Submarine, Anti-Surface Operations.</li> <li>• Naval Special Warfare (NSW) insertion, Search and Rescue (SAR),</li> </ul>

				Combat Search and Rescue (CSAR), Vertical Replenishment (VERTREP), and Medical Evacuation (MEDEVAC).
<b>MQ-9B Drones (Sea-Guardian)</b>	Airborne Anti-Submarine Warfare (ASW)	Planned	To be delivered by 2029	<ul style="list-style-type: none"> <li>• Performs Maritime Surveillance and Targeting</li> <li>• 1350 kg payload capacity</li> <li>• AN/ZPY-1 STARLite Radar for Maritime Surveillance</li> <li>• Equipped with lightweight torpedoes for ASW.</li> </ul>
<b>Rafale-M</b>	The Navy version to operate from INS Vikrant and INS Vikramaditya	Planned	Deal signed in 2025 and to be delivered in 2028	<ul style="list-style-type: none"> <li>• Equipped with BrahMos cruise missiles</li> <li>• HAMMER Air-to-Ground Missiles.</li> </ul>
<b>SMART Torpedo System</b>	Supersonic Missile Assisted Release Torpedo (SMART), which is an Anti-Submarine Missile	Tested in 2020-23	Induction Phase Underway	<ul style="list-style-type: none"> <li>• Canister-based long-range missiles, which have a 650 km range,</li> <li>• Lightweight ASW torpedo for Anti-Submarine.</li> <li>• The missile is Supersonic, having a speed of Mach 2+.</li> <li>• Can be launched from frigates and destroyers.</li> </ul>
<b>BrahMos Coastal Defence System</b>	Land-Based Mobile Anti-Ship Missile System	Planned	Induction to begin in 2027	<ul style="list-style-type: none"> <li>• Missiles have an expected range of ~400 km.</li> <li>• Performs high-altitude cruise and sea-skimming in terminal phase.</li> <li>• Specifically designed for ship-kill.</li> </ul>

				<ul style="list-style-type: none"> <li>Ensures Access/Area (A2/AD) Strategy</li> </ul>	Area Denial
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All the aforementioned acquisitions collectively aim to modernize Indian naval operations in the Indian Ocean by ensuring a persistent presence across the maritime domain and enabling the Indian Navy to maintain dominance at sea and offshore. However, it is important to note that modernization extends far beyond merely increasing the number of platforms. It reflects a broader strategic intent, one that signals interests in constraining the maritime operations of others, pursuing regional hegemonic ambitions, dominating critical sea lines of communication, and enabling strategic brinkmanship.

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***Link:*** <https://ciss.org.pk/indian-naval-modernization/>

<sup>i</sup> Abid Hussain, "Are India and Pakistan Preparing for a Naval Face-off in a Future Conflict?," *Al Jazeera*, June 11, 2025, accessed December 5, 2025, <https://www.aljazeera.com/news/2025/6/11/are-india-and-pakistan-preparing-for-a-naval-faceoff-in-a-future-conflict>.

<sup>ii</sup> Syed Irfan Raza, "Navy thwarted Indian aircraft carrier threat, says Shehbaz," *DAWN*, May 20, 2025, accessed December 3, 2025, <https://www.dawn.com/news/1912141>.

<sup>iii</sup> Musavir Hameed Barech, "India's Naval Modernization and Security Dynamics of South Asia," *Strategic Forecast*, October 15, 2025, accessed December 4, 2025, <https://strategicforecast.cissajk.org.pk/?p=22751>.

<sup>iv</sup> Vikram Mittal, "The Indian Navy Is Building And Fielding A New Ship Every 40 Days," *Forbes*, November 11, 2025, accessed December 5, 2025, <https://www.forbes.com/sites/vikrammittal/2025/11/11/the-indian-navy-is-building-and-fielding-a-new-ship-every-40-days/>.

<sup>v</sup> "India Military Spending/Defence Budget | Historical Data | Chart | 1960-2023," *Macrotrends*, accessed December 2, 2025, <https://www.macrotrends.net/datasets/global-metrics/countries/ind/india/military-spending-defense-budget>.

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<sup>vii</sup> Adithya K. Menon, "Indian Navy's Indigenous Submarine Programs Gather Steam," *Naval News*, September 15, 2025, accessed December 1, 2025, <https://www.navalnews.com/naval-news/2025/09/indian-navys-indigenous-submarine-programs-gather-steam/>.

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