Indian Naval Modernization: From Buyers to Builders Navy and Implications for Indian Ocean Region Security

Abdul Moiz Khan and Usman Haider*

Abstract

The successive Indian governments since 1947 have continually worked to indigenize the weapons manufacturing, particularly indigenous warship construction, given the country's extensive coastline along the Arabian Sea and the Andaman Sea. Over time, the aspiration to establish a blue-water navy intensified, leading to the deployment of an increasing number of warships and submarines. India consistently emphasized indigenization, recognizing that building such a navy requires more than merely importing ships and platforms. Under Prime Minister Narendra Modi's push for self-reliance, the domestic defence industry has apparently achieved a significant milestone by manufacturing all major naval platforms within Indian shipyards. To project influence across the Indian Ocean Region (IOR), India has aimed to develop a robust maritime force with both defensive and offensive capabilities. This effort reflects a broader ambition to emerge as a dominant maritime power in the region. The main question addressed in this paper is: How has India's effort to indigenize its warship-building industry and what implications does this development have for security dynamics in the IOR, especially for Pakistan? To explain this, the paper applies neorealism conceptual framework. This study finds that India, under Narendra Modi, has emerged as the only state in the IOR that has achieved the capability to build all types of warships domestically. This development is likely to create a security dilemma for IOR littoral states and may also threaten strategic stability between Islamabad and New Delhi. The paper concludes that India's ambitious naval modernization plans are more likely to accelerate maritime competition.

Keywords: Indian Ocean Region, Indian Navy, Modernization, Indigenization, South Asia, Buyers to Builders, Shipyards.

* Abdul Moiz Khan is a Research Officer at the Center for International Strategic Studies, Islamabad. He can be reached at kmoiz768@gmail.com.
Usman Haider is an Independent Researcher and holds an MPhil in Strategic Studies from National Defence University, Islamabad. He can be reached at usman.ssg@gmail.com.

Introduction

India's contemporary pursuit in the Indian Ocean Region (IOR) appears to be based on its first Prime Minister Jawaharlal Nehru's belief that "history has shown that whatever power controls the IOR has, in the first instance, India's seaborne trade at her mercy and in the second India's very independence itself".[1] After independence, India's outlook on security was continental rather than maritime, as evident in the financial allocations, procurement of technology and capabilities, and the Indian Navy's lack of operational readiness.[2] For instance, the navy's share of the Indian defence budget was only 4% in 1950-51.[3]

The Indian naval budget increased in the post-Cold War era.[4] From that time onwards, the Indian Navy's importance in the grand Indian strategy has been growing steadily, especially under the reign of Narendra Modi. Under his tenure, the Indian Navy received additional funding. In addition, he took an interest in enhancing India's naval capabilities, which can be depicted from his statement, "in the past, security concerns in the Asia-Pacific region and the Indian Ocean have long been ignored. But today, this area is a major defence priority for the country. That is why we are working in every direction, from increasing the budget for the navy to increasing its capability".[5]

To accomplish this, he emphasized self-reliance because a country depending on other states for its armaments cannot rise to the stature of a major global power. This was New Delhi's dilemma as it wanted great power status but depended on other states for its military needs. To overcome this dilemma, India is moving from a buyer's navy to a builder's navy to achieve its goals. This transition is well underway, with the Indian shipbuilding industry now delivering one ship every 40 days.[6]

---

[1] Donald L. Berlin, "India in the Indian Ocean," *Naval War College Review* 59, no. 4 (2006): 58–59.
[2] K. M. Panikkar, *India and the Indian Ocean: An Essay on the Influence of Sea Power on Indian History* (New Delhi: Creative Media Partners, 2021).
[3] Gulab Mohanlal Hiranandani, *Transition to Triumph: History of the Indian Navy, 1965–1975* (New Delhi: Lancer Publishers, 2000).
[4] Rahul Roy-Chaudhury, "Indian Naval Expenditure in the 1990s," *Strategic Analysis* 22, no. 5 (1998): 675–90.
[5] Tayfun Ozberk, "Indian Navy Commissions Indigenous Aircraft Carrier 'INS Vikrant,'" *Naval News*, September 2, 2022, https://www.navalnews.com/naval-news/2022/09/indian-navy-commissions-ins-vikrant/
[6] Vikram Mittal, "The Indian Navy Is Building And Fielding A New Ship Every 40 Days," *Forbes*, November 11, 2025, https://www.forbes.com/sites/vikrammittal/2025/11/11/the-indian-navy-is-building-and-fielding-a-new-ship-every-40-days/.

Indian Naval Modernization: From Buyers to Builders Navy and Implications for Indian Ocean Region Security

India's contemporary naval modernization is driven by a convergence of strategic, doctrinal, and technological imperatives aimed at enhancing its influence across the IOR. Central to this transformation is India's pursuit of nuclear-powered submarines equipped with both short- and long-range submarine-launched ballistic missiles (SLBMs). This modernization is closely tied to India's transition from a predominantly buyer's navy to an increasingly indigenous builder's navy, enabled through domestic shipbuilding programs, defense industrial partnerships, and incremental doctrinal adaptation. Indigenization is not merely an economic or technological choice but a strategic one.

Scholars such as Hiranandani emphasize institutional learning, leadership, and the Indian Navy's role in shaping indigenous shipbuilding.[7] Holmes, Yoshihara, and Winner analyze Indian naval strategy, sea power thinking, and maritime competition in the Indian Ocean.[8] In addition, works of Frank O'Donnell and others focus on India's pursuit of nuclear-powered submarines and their impact on deterrence and regional stability in the IOR.[9]

However, there exists less scholarly work on how the Indian Navy has ended its reliance on ships and submarines procured from foreign countries. Furthermore, the geopolitical implications for the IOR remain under-examined as India reduces its reliance on foreign suppliers and accelerates its domestic naval induction.

This research aims to cover this gap. It identifies that the Indian Navy has transitioned from being a buyer to being a builder. The study explains that India has achieved the goal of having all ships and submarines designed and built domestically. This happened because the Indian government has upgraded its shipyards to the point that they are now capable of constructing not only large, bulky aircraft carriers but also complex machines such as nuclear-powered ballistic missile submarines (SSBNs). Moreover, it will serve as a foundational stone for future studies

[7] Priyanka Patel, Sameer Patil, and Arun Vishwanathan, "India's Quest for Defence Indigenisation: A Case Study of the Indian Navy," *Journal of Asian Security and International Affairs* 10, no. 3 (December 2023): 364–94, https://doi.org/10.1177/23477970231207255.
[8] James R. Holmes, Andrew C. Winner, and Toshi Yoshihara, *Indian Naval Strategy in the Twenty-First Century*, Cass Series—Naval Policy and History 44 (London and New York: Routledge, 2009).
[9] Frank O'Donnell and Yogesh Joshi, "Lost at Sea: The Arihant in India's Quest for a Grand Strategy," *Comparative Strategy* 33, no. 5 (October 2014): 466–81, https://doi.org/10.1080/01495933.2014.962970.

because it illustrates that the rationale for becoming a builder navy is to accomplish the broader goal of becoming and maintaining a blue water navy.

The primary question addressed in this paper is: How has India's effort to indigenize its warship-building industry, particularly under the Modi government, shaped this process, and what implications does this development have for security dynamics in the IOR especially for Pakistan?

This study employs a qualitative research methodology, drawing upon both primary and secondary sources to examine India's naval modernization and its strategic implications. Primary sources include official policy documents, doctrinal statements, government reports, and speeches by senior civilian and military officials, while secondary sources consist of academic literature, think-tank analyses, and reputable media reports. This approach facilitates an in-depth interpretation of how India's maritime capabilities are conceptualized, justified, and operationalized, while also enabling assessment of their broader implications for regional security and strategic stability in South Asia and other regions of the IOR.

After this section, paper discusses, theoretical framework of Neorealism. Next, the article discusses Indian naval maritime strategies by illustrating how much they emphasize building surface and submerged platforms domestically. Following this, the article illuminates the organizational structure responsible for overseeing and making decisions about naval vessel construction. Moving into the middle section, which forms the core of the study, the article explains how and when the foundational stones were laid for building naval platforms and how the process was accelerated under Modi's government. Moreover, this section further explains the measures taken by Modi's government to upgrade the capabilities of shipyards to enhance their operational efficiency and capacity.

The latter half of the article identifies the future platforms that will be constructed in India over the next fifteen years. In the last section, the article explains that the ongoing modernization of the Indian Navy in the form of uplifting the shipbuilding industry can increase India's power projection in the IOR in an unprecedented manner, fuelling strategic imbalance and instability. Therefore, the primary focus of this research paper is to analyze the indigenization of the Indian naval fleet, how India has transitioned from being a buyer to a builder's navy, and to explore India's ambitions in the IOR, as well as how these ambitions threaten the IOR's stability

Theoretical Framework

According to Kenneth Waltz, who laid the foundation of the Neo-Realist school of thought, there is anarchy at the international structure level, lacking any central authority. He argues that states are like units in their functions, and each state is there for itself only, i.e., focused on self-help.[10] In this kind of structure, if a state increases its power, it forces other states to find means to counter its influence. In the context of IOR, this international anarchy explains the implications of Indian naval modernization and indigenization for other regional states. This gave rise to the security dilemma, which, according to John Herz, who first coined the term, defines it as the never-ending cycle in which an actor in an effort to secure itself from rival groups or individuals, tries to acquire more and more power, which in turn renders the others more insecure and compels them to take their own initiatives to secure themselves and as a result the vicious cycle never stops.[11]

The theoretical lens of Neorealism can aptly explain the causal effect of a buyer-dependent force on an indigenous builder navy in the IOR. In an anarchic structure, the top most priority of all states is survival and securing self-interest. The resulting security dilemma of other states can push a region to pursue a path of military build-up, eventually affecting regional stability.[12] As India has ended its reliance on foreign actors and indigenized shipbuilding, it can project its naval power in the IOR.

India and Pakistan have been in a strategic rivalry since their independence. If India increases its influence in IOR, Pakistan will have no option other than to weigh its preferences to balance the regional order through internal or external balancing. Moreover, Indian hegemonic aims threaten other regional actors. The regions in the IOR, especially South Asia and Southeast Asia, will be affected by Indian power projection, while New Delhi keeps increasing its influence for its benefit.

[10] Kenneth Waltz, *Theory of International Politics* (New York: McGraw-Hill, 1979), 25.
[11] Shiping Tang, "The Security Dilemma: A Conceptual Analysis," *Security Studies* 18, no. 3 (2009): 590.
[12] John H. Herz, "Idealist Internationalism and the Security Dilemma," *World Politics* 2, no. 2 (1950): 158.

Maritime Strategies and Emphasis on Indigenization

A strategy is formulated to achieve the desired political objectives using available resources. The Indian political objective of having a blue-water naval force in the IOR could only be achieved through indigenization. Keeping this in view, the Navy has also overtly stressed the need to attain self-sufficiency in building warships and submarines. Following the 2007 publication of 'Freedom to Use the Seas: India's Maritime Military Strategy', the Navy's strategic documents have increasingly focused on the process of indigenization. This maritime document's basic premise was to underscore the significance of the Indian Navy in enabling New Delhi to use the Indian Ocean waterways for its national interests.[13] However, at the same time, the doctrine unambiguously stated that it is a strategic necessity for any state to design and construct naval warships.[14] To uphold this maxim, the Indian Navy will adopt specific processes that shorten design and construction times and reduce costs to support the Navy's indigenous capability enhancement. Moreover, the doctrine underscored the significance of a robust public-private partnership, which will be essential for India to maintain a strong defence industrial base and guide the country on the path toward self-reliance.[15]

The doctrine, "Ensuring Secure Seas: Indian Maritime Security Strategy," was introduced in 2015.[16] It shifted policy from freedom of seas to actively ensuring the security of seas, expanding the role of the Indian Navy. The 2015 strategy outlined India's maritime security objectives, which include strengthening net security within India's area of interest, protecting coastal and offshore assets from sea-based threats, and developing a force capable of fulfilling India's maritime security needs. In short, the maritime doctrine reflects the evolving outlook and priorities of the Indian Navy. The Navy affirmed in its 2015 strategy document that it would continue on the path of self-reliance.[17] The Navy underscored its success in its achievement of transformation from "a buyer's navy to a 'builder's navy".[18] It revealed that the service will take measures to increase self-reliance

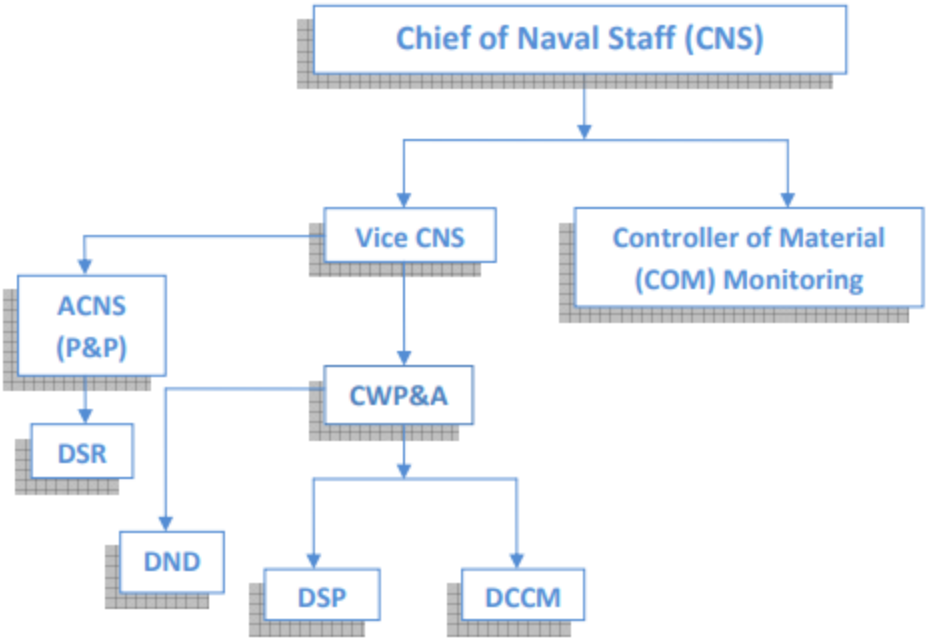
[13] Allah Nawaz, "India's Evolving Maritime Strategy," *South Asian Voices*, March 31, 2023, https://southasianvoices.org/indias-evolving-maritime-strategy/.
[14] Directorate of Strategy, Concepts and Transformation, *Freedom to Use the Seas: India's Maritime Military Strategy* (New Delhi: Integrated Headquarters Ministry of Defence [Navy], 2007), 121.
[15] Concepts and Transformation, *Freedom to Use the Seas*, 124.
[16] Directorate of Strategy, Concepts and Transformation, *Ensuring Secure Seas: Indian Maritime Security Strategy* (New Delhi: Integrated Headquarters, Ministry of Defence [Navy], 2015), accessed August 15, 2025.
[17] Concepts and Transformation, *Ensuring Secure Seas*, 131.
[18] Ibid.

in warship construction and focus more on domestic production of modern naval arms and ammunition. The Navy will focus on designing and producing advanced platforms, equipment, and systems to meet its operational needs within competitive timeframes and budgets. This may involve Indian companies forming consortia, joint ventures, and public-private partnerships with foreign partners, including technology transfer (ToT), in line with government policies.[19] All these efforts will contribute to attaining the grand strategy goal of having strategic autonomy vis-à-vis naval vessel construction.

Warship Building Organizational Hierarchy

The Indian Navy tightly controls the warship and submarine building, from formulating procedures and protocols to be followed while building these platforms. The Naval chief remains the principal authority, but he does not oversee the routine operational work, which falls under the office of the Vice Chief of Naval Staff (VCNS), which deals with sanctioning the building of surface and submerged vessels.[20] Under the command of VCNS lie various departments, such as the Assistant Chief of Naval Staff (Policy and Plan), who reports to the VCNS and oversees all perspectives, force level, financial, and infrastructure plans and programmes of the Navy. The Directorate of Naval Design (DND) comprises engineers who design various ships. The Directorate of Ship Production (DSP) is each ship class's project manager. Both DND and DSP operate under the Controller of Warship Production and Acquisition (CWP&A). The Directorate of Cost and Contract Management (DCCM), also under CWP&A, manages budget control and coordinates ship construction contracts. Together, these directorates are responsible for designing, producing, procuring equipment and materials, and managing finances related to the ships under construction. In addition to controlling the product's quality, the responsibility lies with the Controller of Material Monitoring (COM) office, the operational unit in charge of monitoring all the activities related to the construction of naval vessels. The organizational hierarchy is mentioned in the organogram below;

[19] Ibid., 132.
[20] Controller, Auditor General of India, *Chapter 1: Warship Building – An Overview*, report (New Delhi: Controller, Auditor General of India, 2011), accessed August 20, 2025, https://cag.gov.in/uploads/download_audit_report/2011/Union_Performance_Defence_Indigenous_Construction_Naval_Warships_32_2010_chapter_1.pdf.



Source: Controller, Auditor General of India.[21]

Indian Navy's Indigenous Capability Development: From Buyer's to Builders Navy

The Indian government's acquisition of Mazagon Dock Shipbuilders Limited (MDSL) in 1960 proved the first practical step towards the indigenous production of warships.[22] It was envisioned that the Navy could build frigates domestically. For this purpose, the technical teams were sent to the Netherlands and Sweden; however, they recommended directly buying Leander-class frigates from the United Kingdom (UK) for techno-economic reasons.[23] However, twenty-one years after independence, after the upgradation of MDSL, the government decided to build them in India. As a result, the first frigate, INS Nilgiri, was launched in 1968 based on the design of the UK's Leander-class frigates.[24] This was a significant milestone for India. Following this, India achieved another accomplishment when, in 1983, INS Godavari, the first warship designed and built

[21] Auditor General of India, "Chapter 1: Warship Building -An overview."
[22] Hiranandani, *Transition to Triumph*, 08.
[23] Ibid.
[24] Ibid, 68.

indigenously, was commissioned into service.[25] Unlike the Leander-class ships, Project 16 warships were designed on an entirely new platform; consequently, the Naval Design Directorate took over the project from the Leander Project Directorate.[26] Since the success of these two aforementioned projects, the Navy has been able to produce various ships domestically. However, regardless of their success, the navy still relies on foreign-built platforms, especially Russian-origin warships, to fulfil its needs. This is evident from the occasional procurement of frontline vessels such as INS Viraat and INS Vikramditya carriers, Rajput-class destroyers, Talwar-class frigates, and other platforms. However, when Modi became Prime Minister, the policy was adopted to completely indigenize the warship building.

Likewise, the journey to build an indigenous submarine was not easy for the Indian Navy. It took the Indian domestic industry decades after partition to begin designing, building, and launching submarines from its naval dockyards. India's first locally built diesel-electric submarine (SSK) was the INS Shalki, a license-produced copy of the German Type 209.[27] Work began on the hull in 1984 at MDSL, and the submerged platform was launched in 1989.[28] Finally, in 1992, the maiden indigenously built submarine was commissioned into India's silent force.[29] After successfully building the Type 209 submarines domestically, India signed a new agreement with France in 2005 to build six Kalvari-class submarines indigenously.[30] On the other hand, the plan to construct an SSBN program, the Advanced Technological Vehicle (ATV), secretly began with Soviet technical support in 1984.[31] The INS Arihant-class submarines are being built by the Shipbuilding Centre (SBC) at Naval Dockyards in Vishakhapatnam, a facility designed to

[25] V. Narayan, "INS Godavari Sets Sail into the Sunset after 3 Decades," *Times of India*, December 21, 2015, https://timesofindia.indiatimes.com/city/mumbai/INS-Godavari-sets-sail-into-the-sunset-after-3-decades/articleshow/50259958.cms.
[26] Gulab Mohanlal Hiranandani, *Transition to Eminence: The Indian Navy 1976–1990* (New Delhi: Lancer Publishers, 2005), 64.
[27] "The Indian SSN Project: An Open Literature Analysis," Federation of American Scientists, accessed September 2, 2025, https://nuke.fas.org/guide/india/sub/ssn/part01.htm.
[28] Ibid.
[29] K. G. Ramkumar and Prakash Panneerselvam, "Indian Navy's Submarine Development Programme: A Critical Assessment," *Journal of Asian Security and International Affairs* 10, no. 3 (2023): 402, https://doi.org/10.1177/23477970231207258.
[30] Captain M. Doraibabu and Commander Amrut Dilip Godbole, *A Decade of Transformation: The Indian Navy 2011–2021* (New Delhi: HarperCollins Publishers, 2023), 98.
[31] K. G. Ramkumar and Prakash Panneerselvam, "Indian Navy's Submarine Development Programme: A Critical Assessment," *Journal of Asian Security and International Affairs* 10, no. 3 (2023): 399, https://doi.org/10.1177/23477970231207258.

manufacture SSBNs.[32] However, India took around two and a half decades to launch its first domestically produced SSBN in 2009. Finally, it was commissioned into service in 2016 and carried out its first deterrent patrol two years later.[33]

Table: 1

Submarine Name	Type	Commissioned Year	Builder
INS Shalki	SSK	1992	MDSL
INS Shankul	SSK	1994	MDSL
INS Arihant	SSBN	2009	SBC
INS Kalvari	SSK	2017	MDSL
INS Khanderi	SSK	2019	MDSL
INS Karanj	SSK	2021	MDSL
INS Vela	SSK	2021	MDSL
INS Vagir	SSK	2023	MDSL
INS Arighat	SSBN	2024	SBC
INS Vagsheer	SSK	2025	MDSL

Source: Author's own Compilation using different sources.

Indigenization in the Modi Era

The idea of transforming from a buyer's navy to a builder's navy is part of Modi's ambitious plan to indigenize naval power. Since becoming Prime Minister in 2014, Modi has emphasized reducing reliance on foreign countries. In line with his policy, the Indian Navy put forward a guideline document, the Indian Naval Indigenization Plan (INIP) 2015-2030, to achieve its objective of indigenization.[34] This was per the Modi policy of Make in India, which includes building ships and submarines, weapon systems, and spare parts domestically.[35] The INIP was introduced to completely transform the Navy from buyer to builder, which was echoed by the Indian naval chief

[32] "The Secret Undersea Weapon," *India Today*, January 30, 2008, https://www.indiatoday.in/magazine/defence/story/20080128-the-secret-undersea-weapon-735178-2008-01-17.
[33] Doraibabu and Godbole, *A decade of transformation*, 101.
[34] Dost Barrech, Mukesh Kumar Khatwani, and Ayesha Alam, "Indian Naval Transformation under Modi Regime: Implications for Pakistan," *Pakistan Vision* 25, no. 1 (June 2024): 89.
[35] Dinaker Peri, "Navy Aligns Indigenisation Plan with 'Make in India'," *The Hindu*, July 21, 2025, https://www.thehindu.com/news/national/navy-aligns-indigenisation-plan-with-make-in-india/article7444736.ece.

Robin K Dhowan's statement in 2015, when he stated that "the blueprint for the future Indian navy remains firmly anchored on self-reliance and indigenization".[36] Under Modi's government in the last decade, the Navy has commissioned 33 surface platforms and seven submarines, totalling 40.[37] However, 39 naval platforms out of 40 were built indigenously.[38]

The INIP plan is progressing. Indigenous warship production saw steep growth; almost all warships have been built in domestic shipyards. Shipyards' upgradation process facilitated the building of frontline ships and submarines for the Indian Navy, including INS Vikrant, Kalvari, and Arihant class submarines, Visakhapatnam and Kolkata class destroyers, Nilgiri Frigates, Shivalik class frigates, and Kamrota class corvettes. Apart from vessel construction, small materials like spares and electrical equipment are indigenously built simultaneously. The navy has indigenized around 3,400 items under INIP, including over 2,000 machinery and electrical spares, over 1000 aviation spares, and over 250 weapon spares.[39] According to INIP, 90% of indigenization has been achieved in the float category, 60% in the move category, and 50% in the fight category.[40] The float part comprises the hull along with its fittings and components. The Move section encompasses the engine and all elements that facilitate movement. Complete propulsion systems include associated machinery and auxiliaries. Fight covers sensors and weapons. The Indian Navy is focusing its indigenisation efforts on propulsion, power generation, weapons, and sensors.[41]

[36] Rajit Pandit, "Govt Moves to Turn Buyer's Navy into a Builder's Navy," *Times of India*, July 17, 2015, https://timesofindia.indiatimes.com/india/govt-moves-to-turn-buyers-navy-into-a-builders-navy/articleshow/48106944.cms.
[37] Ministry of Defence, "Prime Minister Shri Narendra Modi Dedicates to the Nation Frontline Naval Combatants – INS Surat, INS Nilgiri & INS Vaghsheer – in Mumbai," press release, January 15, 2025, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2093018.
[38] Ibid.
[39] Dinaker Peri, "Navy Accelerates Indigenisation Efforts, Focus on Weapons and Aviation Items," *The Hindu*, April 16, 2022, https://www.thehindu.com/news/national/navy-accelerates-indigenisation-efforts-focus-on-weapons-and-aviation-items/article65324255.ece.
[40] Mayank Singh, "Indian Navy's 262 Indigenous Projects under Advance Stage," *The Indian Express*, October 27, 2024, https://www.newindianexpress.com/nation/2024/Oct/27/indian-navys-262-indigenous-projects-under-advance-stage.
[41] Ibid.

Upgradation of Shipyards

There are 53 shipyards, which form the backbone of the Indian shipbuilding industry.[42] These shipyards can integrate all equipment required for warship/submarine building: floating hull, power engine, and armaments. The equipment associated with hull structures and fittings comes under the float category. Propulsion systems, power generation engines, alternators, associated control and auxiliary mechanical systems, fire-fighting systems, and general electrical equipment come under the move category. All ship-borne weapons and sensor systems that improve the ship's combat capability are associated with the fight category. The key shipyards involved in building warships and submarines are mentioned in Table 2.

Table 2

Key Shipyard Names	**Ownership**	**Operational Control**
Ship Building Centre (SBC)	Public	Defence Ministry
Mazagon Dock Shipbuilders Limited (MDSL)	Public	Defence Ministry
Garden Reach Shipbuilders and Engineers (GRSE)	Public	Defence Ministry
Goa Shipyard Limited (GSL)	Public	Defence Ministry
Hindustan Shipyard Limited (HSL)	Public	Defence Ministry
Cochin Shipyard Limited CSL)	Public	Shipping Ministry
Hooghly Dock and Port Engineers Limited (HDPEL)	Public	Shipping Ministry

Source: Compiled by author from the Ministry of Defence website.

In addition, the Indian government has taken various initiatives in the last two decades to increase the shipbuilding capacity of its existing public sector shipyards. The rationale is to end complete reliance on foreign shipbuilders in order to accomplish the status of blue-water navy and maintain it, one needs to have the capacity and resources to build their warships and submarines indigenously, like China and the US. It is evident from the fact that the INS Tamal, a Talwar-class

[42] Ministry of Ports, Shipping, and Waterways, *Annual Report 2024–25*, report (New Delhi: Ministry of Ports, Shipping, and Waterways, 2025), 50, accessed September 1, 2025, https://shipmin.gov.in/sites/default/files/Annual%20Report%202024-25%20-%20English.pdf.

frigate, is the last ship constructed outside India.[43] As per the Indian government's announcement, all surface and submerged platforms will be built domestically from now on. At present, the current shipyards, including both private and public sector shipyards, have the capacity to fulfil this ambitious task.

MDSL remains the principal shipyard for building strategic naval vessels. So far, it has built 30 warships and eight conventional submarines for the Indian Navy.[44] It is capable of constructing both surface warships and submarines. It remains the primary facility for constructing all SSKs built in India. Its shipbuilding capacity has increased as it can build five naval warships compared to three in the past, and its submarine construction capacity has increased from three to six.[45] In addition to the MDSL, SBC remains another facility capable of building submarines, especially the SSBNs.

CSL is the only public-sector shipyard in India that can build a warship of 1,10,000 Deadweight Tons (DWT), which will be increased to around 3,00,000 DWT, enabling India to produce large aircraft carriers.[46] Like MDSL, it also has three dry docks for ship construction and four repair units, which can work simultaneously.[47] The third dry dock, which is 1017.06 ft in length, 246 ft in width, and 43 ft in depth, became operational in 2024.[48] It also has a newly installed crane with a capacity to lift a load of about 600 tons, making it the largest facility in India.[49]

[43] Javaria Rana, "All about INS Tamal, the Last Overseas-Built Frigate Set to Guard India's Western Waters," *The Print*, June 30, 2025, https://theprint.in/defence/all-about-ins-tamal-the-last-overseas-built-frigate-set-to-guard-indias-western-waters/2674704/.
[44] Mazagaon Dock Shipbuilding Limited, *Annual Report 2024–25*, report (Mumbai: Mazagaon Dock Shipbuilding Limited, 2025), 12, accessed August 20, 2025, https://mazagondock.in/images/pdf/Annual%20Report%20FY%202024-25.pdf.
[45] Ministry of Defence, "Ship Building Capacity of Indian Navy," press release, March 8, 2016, https://www.pib.gov.in/newsite/PrintRelease.aspx?relid=137430.
[46] Ministry of Ports, Shipping, and Waterways, *Annual Report 2024–25*, report (New Delhi: Ministry of Ports, Shipping, and Waterways, 2024), 59, accessed August 20, 2025, https://shipmin.gov.in/sites/default/files/Annual%20Report%202023-24_English.pdf.
[47] "Location," *Cochin Shipyard Limited*, accessed 20 August 2025, https://cochinshipyard.in/location.
[48] "Cochin Shipyard Set to Take a Giant Leap on Global Stage with New Dry Dock and Repair Facility," *Indian Shipping News*, January 16, 2024, https://indiashippingnews.com/cochin-shipyard-set-to-take-a-giant-leap-on-global-stage-with-new-dry-dock-and-repair-facility/.
[49] Ibid.

HSL, which is located in Visakhapatnam, is also renowned for building large warships. However, it has the additional capability of repairing and overhauling submarines.[50] It is the second largest facility after CSL, with a capacity of 80,000 DWT for ship building and 70,000 DWT for ship repairs.[51] GRSE, on the other hand, is on the path of modernization and increasing its shipbuilding capacity. Its previous capacity was to build 20 naval vessels of different types annually; however, in 2024, it constructed 24 of them.[52] Moreover, by the end of 2025, the capacity is expected to increase to 28.[53] Table 3 lists the specifications of key shipyards that built the Indian Navy's surface and submerged fleet.

Table 3

Shipyards	**Present Ship-building DWT Capacity**	**Construction Ship Dry Dock**	**Submarine Construction Dry Dock**	**Large Wet Basins**	**Large &Slipways**	**Goliath Crane Capacity (Ton)**
MDSL	Approx. 40,000	03	01	03	09	300
GRSE	10,000	01	Nil	01	01	250
GSL	6,000	02	Nil	01	01	100
HSL	80,000	01	01	01	03	250
CSL	1,25,000	03	Nil	01	03	600, 300, & 150

Source: Author's Own Compilation from different sources.

Indian Navy's shipbuilding capability has increased substantially in the last two and a half decades. It achieved mastery in building warships, a highly intricate and multifaceted task encompassing a range of processes such as feasibility studies, design considerations, system integration, construction, testing, and sea trials. It is now building complex systems independently, from aircraft carriers to nuclear-powered submarines. Besides, the construction time has decreased, as

[50] "Ship Repairs Division," Hindustan Shipyard Limited, accessed August 20, 2025, https://web.archive.org/web/20111008112209/http://www.hsl.nic.in/sr.html.
[51] Ibid.
[52] "GRSE Boosts Shipbuilding Capacity to 28 Vessels by End of 2025, Eyes Green Field Expansion," *Indian Defence Research Wing*, May 24, 2025, https://idrw.org/grse-boosts-shipbuilding-capacity-to-28-vessels-by-end-of-2025-eyes-greenfield-expansion/.
[53] Ibid.

exemplified by the Nilgiri class frigates. Initially, it was estimated that the ships would be built in a time frame of approximately seven years. However, due to the constant upgrades of shipyards and efficiency in supply chains, the time has been reduced to four years.[54]

Future of Indian Naval Indigenization

In addition to the Arihant project, India plans to construct four additional S-5 class SSBNs with a displacement of about 12,000-13,500 tons.[55] Construction is likely to begin in 2027. The S-5s will likely have 12-16 missile tubes, more than the earlier Arihant class.[56] The SSBNS will be capable of carrying new and advanced K-6 SLBMs with a range of 8,000 kilometers.[57] Besides K-6, India is also developing K-5 with a 5,000-kilometer targeting range.[58] The missiles are currently in the development phase, and once operational, they can provide India with an assured second-strike capability. Moreover, the Indian Navy has amended its 30-year submarine building plan to include the program of indigenously building six SSNs.[59] The SSNs will have a 6,000-ton displacement with almost 95 percent indigenous content and will be built at the SBC in Visakhapatnam.[60] These SSNs will provide round-the-clock security to India's SSBNs and increase the strike options for the Indian Navy's conventional submerged operations. India's operationalization of its expanded SSN and SSBN fleet would increase India's power projection in the region, incentivizing it to flex its muscles.

On the conventional side, the Indian Navy approved the building of six new conventional submarines in the coming years, equipped with cutting-edge Air Independent Propulsion (AIP) technology and modern missiles, under the aegis of a Project named P-75I, worth over 40000 CR

[54] Ajay Banerjee, "New Tech Speeds up Warship Making," *Tribune India*, August 27, 2023, https://www.tribuneindia.com/news/features/new-tech-speeds-up-warship-making-538620.
[55] "India Gears Up for Commencement of S5-Class SSBN Manufacturing," *Indian Defence Research Wing*, August 21, 2025, https://idrw.org/india-gears-up-for-commencement-of-s5-class-ssbn-manufacturing/.
[56] Usman Haider, "S5-Class Submarines: Assessing Capabilities and Potential Risks to Region," *Strategic Forecast*, September 26, 2025, https://strategicforecast.cissajk.org.pk/?p=22713.
[57] "Indian Navy to Test K-6 Hypersonic Ballistic Missile for Future Underwater Nuclear Strike Force," *Army Recognition*, July 5, 2025, https://armyrecognition.com/news/navy-news/2025/indian-navy-to-test-k-6-hypersonic-ballistic-missile-for-future-underwater-nuclear-strike-force.
[58] Dr Zahir Kazmi, "The K-5 Conundrum: India's Rising Missile Reach and the Global Blind Spot," *Strategic Forecast*, April 16, 2025, https://strategicforecast.cissajk.org.pk/?p=20927.
[59] Rahuil Bedi, "India to Approve Plans for Six-Boat Nuclear Submarine Fleet," *JANES*, https://www.janes.com/osint-insights/defence-news/industry/india-to-approve-plans-for-six-boat-nuclear-submarine-fleet.
[60] Ibid.

Indian rupees.[61] The submarines under P-75I will replace the older Shishumar class submarines. At the moment, there are three contenders for the P-75-I project: one is the French Barracuda type, the Second is the South Korean DSME-3000, and the third and final is the Spanish S-80 Plus.[62] These companies fulfil the two prerequisites set by the Indian Navy: the boats should be able to carry AIP systems and be armed with land attack and anti-ship cruise missiles.

Likewise, plans exist to construct further indigenous surface vessels. The leading among them is the Project-18 class destroyers, which will potentially carry 144 VLS-launched missiles, including India's premier system, BrahMos.[63] The ships will carry an additional payload compared to the existing Vishakhapatnam-class, which only has 48-cell VLS capability.[64] This indicates the arsenal that new Project-18 warships will possess, but simultaneously demonstrates the domestic shipping industry's ability to build such a sophisticated platform. The Navy is expected to commission six to ten vessels; however, given their capability, more can also be inducted.[65] In addition, the Indian Navy signed an agreement with CSL and GRSE to build eight Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) anti-submarine corvettes.[66] Some are launched, delivered, and inducted, while three remain under construction. Moreover, in the unmanned platforms domain, Krishna Defence and Allied Industries Ltd (KDAIL) has been selected to build unmanned Underwater Vehicles (UUVs), for which the first platform's steel-cutting ceremony took place in June 2025.[67] Table 4 shows the principal vessels that will be built by the Indian shipyards in the next fifteen years.

---

[61] Ministry of Defence, "MoD Issues RFP for Construction of Six P-75(I) Submarines for Indian Navy," press release, July 20, 2021, https://www.pib.gov.in/PressReleasePage.aspx?PRID=1737191.

[62] H. I. Sutton, "Incident: Indian Navy Submarine Reported in International Waters off Pakistan," *Naval News*, https://www.navalnews.com/naval-news/2021/10/incident-indian-navy-submarine-reported-in-international-waters-off-pakistan/.

[63] "Project 18: India Developing Next-Gen Destroyer That Can Carry 144 Missiles, Including BrahMos, and Track Enemies 500 km Away," *The Economic Times*, July 31, 2025, https://economictimes.indiatimes.com/news/new-updates/project-18-india-developing-next-gen-destroyer-that-can-carry-144-missiles-including-brahmos-and-track-enemies-500-km-away/articleshow/123013487.cms?from=mdr.

[64] Ibid.

[65] "Project 18 (P-18) Next-Generation Destroyer: India's Path to a Standardized, Cost-Effective Naval Powerhouse," *Indian Defence Research Wing*, August 4, 2025, https://idrw.org/project-18-p-18-next-generation-destroyer-indias-path-to-a-standardized-cost-effective-naval-powerhouse/.

[66] Usman Haider and Ali Panjhuta, "India's New Shallow Water Anti-Submarine Corvettes: Options for Pakistan," Islamabad Policy Institute, December 2, 2025, https://ipi.org.pk/indias-new-shallow-water-anti-submarine-corvettes-options-for-pakistan/.

[67] "Construction of India's Largest Unmanned Submarine 'Jalkapi' Begins in Halol, Gujarat," *Desh Gujarat*, June 11, 2025, https://deshgujarat.com/2025/06/11/construction-of-indias-largest-unmanned-submarine-jalkapi-begins-in-halol-gujarat/.

Table: 4

Platform	Type	Builder	Quantity
INS Vishaal	Air Craft Carrier	CSL	01
S5 class	SSBN	SBC	04
Project 77	SSN	SBC	06
Kalvari Class	SSK	MDSL	03
Project-75	SSK	MDSL	06
Swimmer Delivery Vehicle	Midget Submarine	N/A	02
UUV	UUV	KDAIL	12
Project 18 class	Destroyer	MDSL	06-10
Project 17B-class	Frigate	MDSL/GRSE	8-10
Next Generation Corvettes	Corvette	CSL	08
ASW-SWC Class	Corvette	4 each by CSL and GRSE	03
NGMVs Class	Corvette	CSL	06
NGC Class	Corvette	5 by GRSE and 3 by CSL	08
MCMV	Minesweeper	N/A	12
Samarthak-class	MPV	L&T	02
NG-MPV	MPV	Likely to be L&T	02
NG-OPV	OPV	GSL and GRSE	08-11
HSL class	FRO	HSL and L&T	04-05

Source: Author's own compilation by using different sources.

Moreover, the Indian shipping industry will also build other platforms, as shown in Table 4. However, if India maintains its maritime practices in the long run, it might become an exporter of military equipment instead of the world's largest importer. Considering its ambitious and status-driven pursuits to join the great power grouping, its naval buildup will only increase the arms race in the region and the security dilemma of other states. The following section covers this subject.

Indian Naval Designs and Regional Stability of the IOR

Indian hegemonic aspirations in its self-proclaimed backyard can negatively impact not only South Asian security but also the broader IOR. The region extends from the Strait of Malacca and the western coast of Australia in the East to the Mozambique Channel in the west. In the north is the Persian Gulf and Arabian Sea, while in the south is the southern Indian Ocean. The critical subregions are South Asia, the Middle East, the eastern coast of Africa, and different islands dotting the ocean. Further, the SLOCs also increase the geopolitical and strategic importance of IOR. Three critical chokepoints in the IOR: the Straits of Malacca, Hormuz, and Bab-el-Mandeb can disrupt oil transportation, trade, and maritime activities.[68] A regional power can influence all entry and exit points and strengthen its anti-submarine warfare and surveillance missions, as it is easier to detect submarines near chokepoints than in the broader sea, expanding maritime dominance.[69]

- ***Arabian Sea Region***

India's primary focus in the IOR is the South Asian region, which includes the Bay of Bengal, the Arabian Sea, and the waters surrounding South Asian Island states. The region is home to two nuclear powers, Pakistan and India, which have a long history of enmity. Indian naval modernization and its goal of emerging as the dominant regional power and a net security provider are perceived by Pakistan as a threat to its national security. India's ambitions would only exacerbate tensions between the two, thus threatening regional stability. Moreover, India has already nuclearized the IOR by developing and deploying nuclear submarines. It also diversifies its launch options by developing new cruise and ballistic missiles for its naval platforms. These include the development of K5 and K6 SLBMs and deploying the 3,500 km range K-4 SLBM on INS Arighat. In response, Pakistan must develop its sea-based deterrent to maintain strategic stability, as well as second-strike capability.

So far, Pakistan has SSKs, and its response to Indian naval provocations has been restrained. Pakistan is the only state in the region that has the capability and operational will to challenge Indian hegemony, particularly in the wake of constant Indian stubbornness and

[68] Abdul Moiz Khan and Amna Saqib, "In Going Global, India Risks Being Undermined in Its Own Backyard," *South China Morning Post*, September 3, 2022, https://www.scmp.com/comment/opinion/article/3191080/seeking-be-major-global-power-india-risks-being-undermined-its-own.
[69] Darshana M. Baruah, "What Is Happening in the Indian Ocean," Carnegie Endowment for International Peace, March 3, 2021, https://carnegieendowment.org/posts/2021/03/what-is-happening-in-the-indian-ocean?lang=en.

aggression against Pakistan. However, India's increasing power projection and move towards a builder's navy will exacerbate Pakistan's security dilemma. Every state must rely on self-help to survive in an anarchical world. Thus, in the absence of any Pakistan-India arms control agreements, the increasing Indian naval strength can only lead to an arms race in the IOR.

- ***Andaman Sea: A Gateway to the Strait of Malacca***

Another vital subregion of the Indian Ocean is Southeast Asia. This region is home to the Malacca Strait, one of the most important waterways for regional states. China is a major regional stakeholder and heavily depends on this channel for energy and trade needs. Further, other regional stakeholders rely on the Malacca Strait, accounting for around 40% of the world's trade.[70] The Indian Navy is flexing its muscles in the eastern Indian Ocean theatre to expand its influence and power projection. In 2018, after an agreement with Singapore, India gained access to the Changi naval base near the Malacca Strait and the South China Sea.[71] The access can provide logistical help to Indian vessels deployed in the region. Moreover, India has developed five offshore military bases in the Andaman and Nicobar Islands. These bases are INS Kohassa, INS Jarawa, Car Nicobar Air Force Base, INS Kardip, and INS Baaz.[72] These bases are close to the Malacca Strait, and India continuously upgrades these facilities.

India's proximity to the Malacca Strait allows it to disrupt this critical waterway for its strategic goals. India can exercise sea denial and sea control options at the Malacca Strait. Indian operational capability to exercise power at the Malacca Strait can impact the stability of the eastern IOR because there are no other naval forces in the region to keep India in check. Further, India's problems with China could spill into this region if New Delhi operationalizes its strength in IOR to limit Beijing's trade in the wake of another border conflict. Thus, the Indian pursuit of controlling the IOR can negatively impact all the regional states dependent on these waterways for their trade and energy needs.

[70] "Factbox – Malacca Strait Is a Strategic 'Chokepoint,'" *Reuters*, March 4, 2010, https://www.reuters.com/article/idINIndia-46652220100304.
[71] Shaurya Karanbir Gurung, "Navy Gets Access to Singapore's Changi Naval Base," *The Economic Times*, July 12, 2018, https://economictimes.indiatimes.com/news/defence/navy-gets-access-to-singapores-changi-naval-base/articleshow/61855776.cms?from=mdr.
[72] "Delhi Continues Strategic Investment in the Indian Ocean," *Asia Maritime Transparency Initiative*, May 9, 2022, https://amti.csis.org/delhi-continues-strategic-investment-in-the-indian-ocean/.

- ***From Euro-Atlantic to Asia-Pacific Theatre***

For centuries, the IOR has not been a major ground for great power rivalry. Europe was the main theatre of war during the previous wars. In this new era of great power competition, the dynamics of world politics are changing. The evolving US-China rivalry might shift the theatre of competition from the Euro-Atlantic to the Asia-Pacific.[73] Due to evolving geopolitical dynamics, the significance of the IOR has grown substantially. Moreover, India is strengthening security alliances with the US and other nations to achieve its goal of regional dominance. China, which relies heavily on the IOR for much of its trade and energy supplies, would need to confront India, potentially prompting the US to boost its naval presence in the region at India's request to counter China. The area is critically important to China because about 80% of its imported oil passes through the IOR and the Malacca Strait.

The evolving Indian maritime strategy, its growing alliances and partnerships, especially with the US, and possible implications for IOR trade routes have worried other states. For instance, China is said to be building naval facilities to secure vital trade routes and counter any future aggression in the wake of the increasing Indian naval prowess in the region. Moreover, the military and technological advancements India has secured through its strategic partnership with the US are likely to prompt other regional actors to seek a strategic balance. A prominent example of this dynamic is the strengthening China-Pakistan strategic partnership. Another notable example is the deepening cooperation between China and the Gulf states, which may eventually culminate in a formal naval strategic partnership.

In sum, the evolving Indian naval strategy can increase strategic instability in the sub-regions of IOR. Once the Indian Navy works in unison with that of the Quad and AUKUS, it has a distant possibility to form an Asian NATO. India's ambition and grand designs for regional hegemony will only spark stronger competition in the region, making IOR the centre of great power competition. The US and other like-minded Western states must realize the perils of propping up India as the net security provider.

[73] Summar Iqbal Babar and Abdul Moiz Khan, "Chinese Military Modernization under Xi: Harbinger of a New Great Powers Rivalry," *Asia-Pacific: Annual Research Journal of Far East & South East Asia* 40, no. 1 (2022): 46, https://doi.org/10.47781/asia-pacific.vol40.Iss0.5863.

Conclusion

India under Narendra Modi has emerged as the only state in the IOR that has achieved the capability to build all types of warships domestically. This goal is in line with India's ambitious objective to have a blue water capability to project its maritime power in the IOR and beyond. In addition, it is also augmenting its shipyards capability to build more ships in less time. All this effort is to have a fleet of 200-plus warships and submarines by 2035, which India deems necessary to project its power projection in the region. This is creating a dilemma for the littoral states in the region because the ability to have a large fleet of naval vessels, and that too in quick succession, has increased New Delhi's maritime domain awareness, particularly its ability to affect the maritime traffic at the region's key chokepoints. Simultaneously, this expanding naval capacity contributes to a growing maritime security dilemma, especially for smaller littoral states and regional competitors such as Pakistan, which perceive India's builder-navy ambitions as a threat to national security, given India's past actions. This also poses new challenges, especially in the Arabian Sea region because the Indian decision to commissioning INS Arihant in 2016 is yet another signal that it wants to maintain hegemony in the region. This effort is backed up by building and deploying advanced conventional surface and sub-surface vessels with cutting-edge anti-surface and anti-submarine capabilities, boosting its maritime force posture in the Arabian Sea region. This is increasing asymmetry between Pakistan and India in maritime affairs, causing a concern in Islamabad that New Delhi somehow aims to affect Pakistan's sea lines of communication. The rhetoric emerging from Indian officials in the aftermath of the May 2025 crisis reflects a strategic mindset indicative of aggressive intent. This mindset, combined with the growing naval capabilities reinforced by the ability to indigenize warships and submarines domestically, suggests a potential temptation for the Indian leadership to pursue a path of aggression in the future as well. This will threaten the strategic stability between Islamabad and New Delhi, which is already fragile because of the latter's decision not to initiate negotiations with the former. Lastly, the ambitious plan of India will result in accelerating maritime competition in the region rather than fostering cooperative security.