

# Analysing India's Naval Development Strategy

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## Abstract

Under the premiership of Narendra Modi, India has witnessed a renewed focus on maritime interests, especially in its broader foreign policy. As the country envisions a key role for itself in extended oceanic waters, its Navy is undergoing a comprehensive modernisation plan that could enable it to dominate maritime activities at least in the Indian Ocean (IO). While it pursues acquiring blue water naval capabilities, India's maritime posture has been gradually shifting from mere self-defence to pre-eminence. Through such enhanced capabilities, the Navy presumably seeks to pursue a set of different objectives that include performing missions of deterrence, creating an Indian-led maritime environment, and ensuring preparedness to engage in possible military conflicts. This article is an attempt to understand India's evolving maritime thinking and how 'Indo-Pacific' as a new regional construct is designed to complement the country's naval ambitions.

**Keywords:** Asia-Pacific, IOR, Naval Modernisation, Maritime Security, Maritime Diplomacy, Warfare.

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## **Introduction**

In pursuit of exerting influence far from its shores, India's maritime posture has been gradually shifting from mere self-defence to pre-eminence. In recent years, the country has been steadily building a powerful navy that could help it dominate maritime activities in the Indian Ocean Region (IOR) and significantly alter the prevailing regional security environment in its favour. Under the premiership of Narendra Modi, India's Act East policy has reinvigorated its maritime goals to pursue geopolitical, strategic and economic interests and emerge as a leading power in the IOR.<sup>1</sup>

As New Delhi projects itself to be the 'net security provider' in the region, it showcases willingness to assume greater responsibilities in the oceanic waters. By analysing how India's maritime strategy has evolved over the years, this article offers analysis on fresh outlook of this strategy under the leadership of Prime Minister Modi. It attempts to explicate the introduction of 'Indo-Pacific' as a new regional construct, India's maritime diplomacy-related initiatives, and its expanding naval force structure to understand the possible implications for regional security, particularly in the Arabian Sea and on Pakistan's national security. The study argues that India's rising maritime power capabilities and diplomacy are elements of a new strategy under Modi that can potentially transform it into a dominant leader in regional security.

## **Development of India's Maritime Thinking**

Traditionally, India's strategic thinking has remained obsessed with land-based threats and characterised by an underestimated role of the navy. As pointed out by C. Raja Mohan, India – like China – has always been interested in the maritime domain, but could not give due attention and resources to its navy.<sup>2</sup> The traces of this neglect can be found in pre-colonial history when India's concerns regarding security from North-western land invasions never allowed it to look seawards. Despite having deep historical imprints in the IOR, and easy access to its waters, India as a geographic entity could never

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<sup>1</sup> Rahul Roy-Chaudhury & Kate Sullivan de Estrada, "India, the Indo-Pacific and the Quad," *Survival* 60, no. 3 (2018): 181-194 (185), <https://doi.org/10.1080/00396338.2018.1470773>.

<sup>2</sup> C. Raja Mohan, *Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific* (Washington, D.C.: Carnegie Endowment for International Peace, 2012), 2.

convert this influence into political or strategic terms. The Mughal rulers were particularly oblivious towards maritime affairs in assessing the perpetually expanding footholds of Great Britain in the Ocean that ultimately led to colonisation of the subcontinent. After decolonisation, maritime experts such as Kavalam Panikkar and Keshav Vaidya highlighted India's early strategic needs and emphasised developing advanced naval capabilities.<sup>3</sup> Both called for advanced naval power projection in order to meet the strategic objectives of the country. Panikkar proposed that the Indian Ocean (IO) should remain 'truly Indian' because the country's 'freedom is dependent on the freedom of that coastal surface.'<sup>4</sup> Vaidya also asserted that India should try to become an invincible and undisputable power in the IO, capable 'to defend not only her coast but her distant oceanic frontiers with her own navy.'<sup>5</sup> This emphasis inculcated the thinking of forward presence in the navy's mindset, and also had an impact on the country's political leadership. For instance, a few days after independence, India's first Chief-of-Naval Staff submitted a ten-year expansion plan with a vision to bring Indian maritime power at par with the Southeast Asian nations.<sup>6</sup> Likewise, Nehru also laid great emphasis on the

<sup>3</sup> Sam Bateman and Joshua Ho, eds., *Southeast Asia and the Rise of Chinese and Indian Naval Power: Between Rising Naval Powers*, Routledge Security in Asia Pacific (Oxon: Routledge, 2014), 59. Kavalam Panikkar is a renowned Indian historian and maritime expert whose views continue to impact India's naval policy, particularly with regards to naval force modernisation. Harsh V. Pant, ed., *The Rise of the Indian Navy: Internal Vulnerabilities, External Challenges*, eds. Greg Kennedy, Tim Benbow, Jon Robb-Webb, Corbett Centre for Maritime Policy Studies Series (London: Routledge, 2016), 4. Keshav Vaidya is also one of the early maritime thinkers who propagated an assertive naval policy for India.

<sup>4</sup> Kavalam M. Panikkar, *India and the Indian Ocean: An Essay on the Influence of Sea Power on Indian History* (London: George Allen and Unwin, 1945), 45, quoted in Harsh V. Pant, ed., *The Rise of the Indian Navy: Internal Vulnerabilities, External Challenges*, eds. Greg Kennedy, Tim Benbow, Jon Robb-Webb, Corbett Centre for Maritime Policy Studies Series (London: Routledge, 2016), 4.

<sup>5</sup> Keshav Vaidya, *The Naval Defense of India* (Bombay: Thacker, 1949), 9, quoted in Harsh V. Pant, *The Rise of the Indian Navy: Internal Vulnerabilities, External Challenges*, eds. Greg Kennedy, Tim Benbow, Jon Robb-Webb, Corbett Centre for Maritime Policy Studies Series (London: Routledge, 2016), 4.

<sup>6</sup> Rahul Roy-Chaudhury, "India and Pakistan: Nuclear-Related Programs and Aspirations at Sea," in *South Asia's Nuclear Security Dilemma: India, Pakistan and China*, ed., Lowell Dittmer (London: Routledge, 2015), 74.

country's geographic proximity to the IO and asserted that 'To be secure on land, we must be supreme at sea.'<sup>7</sup>

Vaidya went further to stress that the 'Indian Ocean must become an Indian Lake', laying basis for the hegemonic tendencies that were to shape the country's regional aspirations in the years to come.<sup>8</sup> However, notwithstanding the continental strategic traditions, the government did not focus attention on developing advanced naval capabilities in the succeeding years. Nevertheless, besides these hurdles, Panikkar and Vaidya's propagations for a stronger Indian Navy significantly influenced maritime thinking. Further, Alfred Mahan's vision about the IO inspired early Indian navalists<sup>9</sup> and had an impact on country's maritime thinking, as evident from its ambitious naval modernisation programme and emphasis on exertion of sea command.<sup>10</sup>

Frequent ground warfare with neighbouring states also resulted in reduction of the navy's share in the national defence budgets. After the Sino-Indian war of 1962, Indian navy reportedly received only 4 per cent of the total defence budget for the next five years.<sup>11</sup> Another explanation of this naval neglect, as experts suggest, relates to the organisational aspect where India's defence forces are driven by *status quo* and focused more on investing in the Army.<sup>12</sup> From this period onward, the navy began to gain more attention as its share in the defence allocations rose from 4 per cent in 1965 to 10 per

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<sup>7</sup> Quoted in Harshvardhan Sharma and Himanshu Subodh Awasthi, "Maritime Security Concerns in the Indian Ocean: Countering Piracy, Trafficking and Terrorism," in *Indian Ocean and Maritime Security: Competition, Cooperation and Threat*, eds. Bimal Patel, Aruna Kumar Malik and William Nunes (New York: Routledge, 2016), 74.

<sup>8</sup> Keshav B. Vaidya, *The Naval Defence of India* (Mumbai: Thacker, 1949), 101, quoted in David Scott, "India's Grand Strategy for the Indian Ocean: Mahanian Visions," *Asia-Pacific Review* 13, no. 2 (2006): 97-129 (100), <https://doi.org/10.1080/13439000601029048>.

<sup>9</sup> Mohan, *Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific*, 3.

<sup>10</sup> Press Information Bureau, Government of India, "Guarding the Coastline of the Country," August 28, 2002, quoted in James R. Holmes and Toshi Yoshihara, "Redlines for Sino-Indian Naval Rivalry," in *Deep Currents and Rising Tides: The Indian Ocean and International Security*, eds. John Garofano and Andrea J. Dew (Washington, D.C.: Georgetown University Press, 2013), 188. For instance, Indian Navy's official statement, released in 2002, quotes Mahan's assertion that the world's destiny would be decided in the Indian Ocean.

<sup>11</sup> Raju G. C. Thomas, *Indian Security Policy* (Princeton: Princeton University Press, 1986), 189.

<sup>12</sup> Iskander Rehman, "India's Fitful Quest for Sea-Power," *India Review* 16, no. 2 (2017): 226-265 (228), <https://doi.org/10.1080/14736489.2017.1313566>.

cent in 1973.<sup>13</sup> In the late 1980s, because of growing dependence on the ocean and the potential role of the navy in future conflicts, India's strategic thinkers assessed the need to advance the capabilities of naval forces. This era, in which the Navy's share increased to 12 per cent of the country's total defence expenditure, resulted in a significant shift and saw an increasing role for it in national security.<sup>14</sup> For instance, by 1989 and 1993 respectively, India had already declared its intention to indigenously build and operate a nuclear submarine and an aircraft carrier on its own.<sup>15</sup> Since then, the Indian Navy has slowly drifted away from its traditional defensive posture and adopted an aggressive strategy that focused on modernisation capabilities, with the objective of increasing the country's footprints in the IOR, development of seaborne nuclear delivery capability, and the readiness to engage in littoral warfare. This expansion aimed at projecting New Delhi's diplomatic influence and demonstrating an effective strategic deterrent. Reflecting upon this vision, Admiral Nirmal Kumar Verma, then Chief-of-Naval Staff, reiterated that by 2025, the Indian Navy would be operating 162 platforms, including aircraft carriers and conventional as well nuclear-powered submarines.<sup>16</sup> Successive Indian governments have actively worked towards achieving this goal. The Bharatiya Janata Party (BJP) government allocated 14.5 per cent of the defence budget to the Navy for the fiscal year 1999-2000.<sup>17</sup> More recently, their share was increased to 15 per cent for the fiscal year 2018-19.<sup>18</sup> The Navy's retired officials and experts assert that its share in the defence budget will eventually rise to 25 per cent.<sup>19</sup>

<sup>13</sup> Thomas, *Indian Security Policy*, 189.

<sup>14</sup> Andrew C. Winner, "Dominance, Balance, or Predominance in the Indian Ocean?" in *Deep Currents and Rising Tides: The Indian Ocean and International Security*, eds. John Garofano and Andrea J. Dew (Washington, D.C.: Georgetown University Press, 2013), 117.

<sup>15</sup> Vernon Hewitt, *New International Politics of South Asia*, 2nd ed. (Manchester: Manchester University Press, 1997), 23.

<sup>16</sup> Jane's World Navies, IHS, "Calculate the Naval Threat," *IHS Markit*, October 21, 2014, 3.

<sup>17</sup> James R. Holmes, Andrew C. Winner and Toshi Yoshihara, *Indian Naval Strategy in the Twenty-First Century*, Routledge Series: Naval Policy and History (Oxon: Routledge, 2009), 82.

<sup>18</sup> Laxman Kumar Behera, "Defence Budget 2018-19: The Imperative of Controlling Manpower Cost" (brief, Institute for Defence Studies and Analyses, New Delhi, 2018), 5, <https://idsa.in/system/files/issuebrief/ib-defence-budget-2018-19-manpower-cost-lkbehera.pdf>.

<sup>19</sup> Rehman, "India's Fitful Quest for Seapower," 227.

## India's Maritime Strategy: Contemporary Dimensions

India issued its official Maritime Doctrine in 2004, and revised versions in 2009 and 2015, to highlight the country's strategic vision and envisaged role of its 'blue water'<sup>20</sup> navy.<sup>21</sup> Two more documents on India's maritime vision include *Freedom to Use the Seas: India's Maritime Military Strategy*,<sup>22</sup> and *Ensuring Secure Seas: Indian Maritime Security Strategy*.<sup>23</sup> As the titles suggest, India's maritime aspirations have swiftly evolved from merely using the seas to dominate to securing them from non-friendly nations. These aspirations urge India to enhance its 'sea-power'<sup>24</sup> and exert naval influence far from its shores in pursuit of having greater share in regional and international politics.

To solidify economic and strategic engagement with the Southeast Asian states, Modi has transformed India's Look East policy into Act East policy that also requires enabling the Navy to conduct variety of operations during war and peace.<sup>25</sup> This strategy may also be seen in connection with the United States Asia-Pacific Rebalancing Strategy, where it seeks to contain the rise of China and, in this context, formulate a security alliance, bolster economic cooperation and create multilateral forums to guard its vested interests.<sup>26</sup> Considering India's visible rivalry with China, which is further aggravated by the divergent political aspirations of the two states, New Delhi

<sup>20</sup> For details, see Michiko Phifer, *A Handbook of Military Strategy and Tactics* (New Delhi: Vij Books, 2012), 53. 'Blue Water' navy refers to a fleet capable of conducting sustainable naval operations beyond the 200 nautical miles from the coast.

<sup>21</sup> Integrated Headquarters, Ministry of Defence (Navy), GoI, *Indian Maritime Doctrine* (Government of India, 2009), <https://www.indiannavy.nic.in/sites/default/files/Indian-Maritime-Doctrine-2009-Updated-12Feb16.pdf>.

<sup>22</sup> Integrated Headquarters, Ministry of Defence (Navy), GoI, *Freedom to Use the Seas: India's Maritime Military Strategy* (Government of India, 2007).

<sup>23</sup> Integrated Headquarters, Ministry of Defence (Navy), GoI, *Ensuring Secure Seas: Indian Maritime Security Strategy* (Government of India, 2015).

<sup>24</sup> Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1600-1783* (New York: Scrivener, 1890), 28. Alfred Mahan identified six elements that determine the sea power of any nation. These include the geographical position, physical conformation, extent of territory, population, character of people, and character of the government.

<sup>25</sup> Gurudas Das and C. Joshua Thomas, eds., *Look East to Act East Policy: Implications for India's Northeast* (Oxon: Routledge, 2016), 13.

<sup>26</sup> Yoichiro Sato and See Seng Tan, eds., *United States Engagement in the Asia Pacific: Perspectives from Asia* (New York: Cambria Press, 2016), 17.

is forging closer strategic relations with Washington. Deepening this strategic partnership has been a priority of successive political governments in India in the last two decades, and the Sino-US rivalry has enabled it to emerge as a key US ally in the region. India's democratic outlook, growing economy, and huge market further draw it closer to the West. To bolster its role as a major maritime power in the region is, therefore, a prerequisite for India to flex its muscles globally. This maritime strategy is a key constituent of its foreign and security policies and is presumably entailed to achieve a set of objectives. These include exerting dominance on key Sea Lines of Communication (SLOCs), contributing towards India's nuclear triad by operating an assured sea-based nuclear deterrent, ensuring operational preparedness to engage in possible military conflicts, and ensuring forward deployment of the Navy beyond the Bay of Bengal. Contrary to the traditional foreign policy approach, Indian maritime strategy now focuses on operating beyond its territorial waters. Admiral Suresh Mehta reiterated this vision by stating, 'Our vision is not restricted to the Indian Ocean.'<sup>27</sup> The primary tools to pursue these objectives include enhanced naval capabilities and maritime diplomacy to forge strategic relationships.

### **'Indo-Pacific': A New Regional Construct**

The term 'Indo-Pacific', as a regional construct, and seen as an integrated geopolitical and geoeconomic region, is relatively new and has gained salience in modern lexicon of geopolitics, especially by US and Indian government officials.<sup>28</sup> Under Prime Minister Modi, India's maritime diplomacy has

<sup>27</sup> "Delhi to Acquire 6 Submarines, 33 Ships," *Dawn*, July 1, 2007, <http://www.dawn.com/news/254268/delhi-to-acquire-6-submarines-33-ships>.

<sup>28</sup> Narendra Modi, "Prime Minister's Keynote Address at Shangri-La Dialogue" (speech, Singapore, June 1, 2018), Ministry of External Affairs, Government of India, <https://www.mea.gov.in/Speeches-Statements.htm?dtl/29943/Prime+Ministers+Keynote+Address+at+Shangri+La+Dialogue+June+01+2018>; and James N. Mattis, "Remarks by Secretary Mattis at Plenary Session of the 2018 Shangri-La Dialogue" (speech, Singapore, June 2, 2018), US Department of State, Government of the United States, <https://dod.defense.gov/News/Transcripts/Transcript-View/Article/1538599/remarks-by-secretary-mattis-at-plenary-session-of-the-2018-shangri-la-dialogue/>. One recent example is Shangri-La Dialogue 2018, where Indian PM Modi and U.S. Secretary of Defence James Mattis repeatedly made use of this term.

embraced the 'Indo-Pacific' region as a broader geographical setting. The term was first used in 2007.<sup>29</sup>

This regional construct became significantly famous when then-US Secretary of State Hillary Clinton used this term in her Honolulu Speech delivered in October 2010 and then-Defence Minister of Australia in 2012.<sup>30</sup> However, the extent to which this new construct – aimed at projecting the Indian and the Pacific Oceans as a single region – constitutes a natural geographic setting remains questionable. On the one hand, regionalism is a political process that involves policy coordination and cooperation among different nations through formal mechanisms or institutions.<sup>31</sup> Bruce Russett defines a region by using social and cultural homogeneity, political attitudes, political institutions, economic interdependence and geographical proximity as necessary components.<sup>32</sup> Cohen has argued that regions are politically made, thus, regionalism does not constitute a fixed geographic or cultural entity, rather, it is a dynamic configuration of political identities.<sup>33</sup> Western scholars highlight that this region is bounded by Japan in the north, Australia in the south-east, and South Asia in the south-west.<sup>34</sup>

From the US perspective, this term signifies its continued strategic presence, and its perceived role in these two conjoining regions under a single strategic framework. One such indication is the decision to rename its largest military command, previously known as the Pacific Command, to the Indo-Pacific Command.<sup>35</sup> Given the intensifying competition between China and

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<sup>29</sup> David Scot, "India and the Allure of 'Indo-Pacific'," *International Studies* 49, no. 3-4 (2012): 1-24 (166), <https://doi.org/10.1177/0020881714534038>.

<sup>30</sup> Rajiv K. Bhatia and Vijay Sakhujaeds., *Indo-Pacific Region: Political and Strategic Prospects* (New Delhi: Vij Books India, 2014), X.

<sup>31</sup> Edward D. Mansfield and Etel Solingen, "Regionalism," *Annual Review of Political Science* 13 (2010): 145-163 (146), <https://doi.org/10.1146/annurev.polisci.13.050807.161356>.

<sup>32</sup> Bruce Russett, *International Regions and the International System: A Study in Political Ecology* (Chicago: Rand McNally & Company, 1967).

<sup>33</sup> Benjamin J. Cohen, *International Political Economy: An Intellectual History* (Princeton: Princeton University Press, 2008), 134.

<sup>34</sup> Randall Doyle, *The Geopolitical Power Shift in the Indo-Pacific Region: America, Australia, China, and Triangular Diplomacy in the Twenty-First Century* (Lanham: Lexington Books, 2016), 9.

<sup>35</sup> "US Pacific Command Renamed as US Indo-Pacific Command," *Economic Times*, June 2, 2018, <https://economictimes.indiatimes.com/news/defence/us-pacific-command-renamed-as-us-indo-pacific-command/articleshow/64398189.cms>.

the US, this symbolic change signifies India's growing importance in the region. It also enables the US to focus on the perceived Chinese threat in the South China Sea, the East Asian security order and to establish a direct strategic as well as economic link with the prospering nations in the Southeast Asian region.<sup>36</sup> In addition to the important maritime trade routes passing through here, the world's largest economies by size, and the fastest growing economies are located in this region, thus compelling the US to ensure its pre-eminence in this maritime space. Considering US' vested interests in this region, and India's democratic outlook, Washington finds it convenient to establish closer ties with New Delhi. This strategic objective has led the US to hyphenate the two oceans into one region, whereby India's potential role in the IO and beyond not only serves its own interests, but also furthers the US interests in this region. US strategic thinkers have been mindful of their limited capability to fight at two different fronts of the Pacific and IO.<sup>37</sup> While the US continues to exert its presence in the Pacific, it has outsourced the security role to India, and made it the 'net security provider' in the region. As Rajesh Basrur points out, the limited capability of the US to solely regulate global affairs requires it to militarily and politically cooperate with other states, which enables India – as an emerging power – to seek entente.<sup>38</sup> Washington's active support to New Delhi in naval modernisation can be seen in this regard. The joint Indo-US military cooperation includes the co-production of advanced defence articles, joint research on advanced jet engines and aircraft carrier technologies, and strategic cooperation on maritime security. Additionally, the Logistics Exchange Memorandum of

<sup>36</sup> Pooja Bhatt, "Evolving Dynamics in the Indo-Pacific: Deliberating India's Position," *Journal of Indo-Pacific Affairs* 1, no.1 (2018): 53-78 (62).

<sup>37</sup> Seth Cropsey and Bryan McGrath, *Maritime Strategy in a New Era of Great Power Competition* (Washington, D.C.: Hudson Institute, 2018), <https://s3.amazonaws.com/media.hudson.org/files/publications/HudsonMaritimeStrategy.pdf>. Cropsey and McGrath argue that the US, obsessed with regionalised land power and counterinsurgency operations, has not been focusing on contending with great powers that consequently resulted in decline of its naval power. They further argue that the US is currently underequipped to deal with systemic state threats, posed by China and Russia.

<sup>38</sup> Rajesh M. Basrur, "Theory for Strategy: Emerging India in a Changing World," *South Asian Survey* 16, no. 1 (2009): 5-21 (12), <https://doi.org/10.1177/097152310801600102>.

Agreement (LEMOA) between the two would also allow them to use each other's bases for refuel and resupply.<sup>39</sup>

From the Indian perspective, the concept of 'Indo-Pacific' is aimed at legitimising the country's envisaged security role not only in the IO but also in the Pacific theatre. Successive US administrations have viewed India as a key player to hedge against China's rise.<sup>40</sup> Thus, the term is also directly linked with New Delhi's willingness to serve as a key actor in Washington's Rebalancing strategy against China; and a tool in its Act East policy that revolves around establishing stronger relations with the Southeast Asian Nations.<sup>41</sup> Engagement under the Indo-Pacific framework also enables the country to acquire sophisticated military technologies from the US. A most recent example of this is Washington's commitment to provide missile defence support as outlined in its Missile Defence Review 2019.<sup>42</sup> From the perspective of other regional states, the terminology that seeks to replace Asia – which represents a whole continent – with the word 'Indo', is an attempt to justify the hegemonic claims of one state over the entire region. Since the China-Pakistan relationship has largely deprived India of establishing primacy or hegemony in the subcontinent, as pointed out by Mohan, the new regional construct of 'Indo-Pacific' appears to offer the country a legitimised leadership role at least in its immediate neighbourhood. This assessment is further reflected by the fact that China and Pakistan do not explicitly welcome this development. China views this regional construct as a US-led alliance to contain its global development initiatives. Yang Yi, Secretary General of the China Institute of International Studies, argues:

As a geopolitical concept, the Indo-Pacific not only reflects changes in the regional economic and political situation, but also embodies the strategic visions of some countries to meet their situational changes and enhance their positions... Based

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<sup>39</sup> Zeeshan Muneer, "Logistics Exchange Memorandum of Agreement" (brief, Center for Strategic and Contemporary Research, Islamabad, 2016), [http://cscr.pk/pdf/rb/RB%20\\_LEMOA.pdf](http://cscr.pk/pdf/rb/RB%20_LEMOA.pdf).

<sup>40</sup> Mohan, *Samudra Manthan: Sino-Indian Rivalry in the Indo-Pacific*, 10.

<sup>41</sup> Bhatt, "Evolving Dynamics in the Indo-Pacific: Deliberating India's Position," 59.

<sup>42</sup> U.S. Department of Defense, GoUS, "Missile Defence Review 2019" (Government of the United States, 2019), 27.

on the policy designs by some scholars and governments, the concept of the Indo-Pacific obviously targets China.<sup>43</sup>

Likewise, Pakistan's Ambassador (R) Zamir Akram opines that the Indo-US engagement under the 'Indo-Pacific' framework and quadrilateral alliance 'amounts to ganging up against China.'<sup>44</sup> Thus, the new construct does not appear inclusive and representative of interests of all regional states, rather it helps India use it as a geopolitical reference that is currently shaping its maritime policies.

This framework also complements the quadrilateral alliance, commonly known as Quad, between the US, Japan, Australia, and India. The composition of annual Malabar naval exercises – which was previously a bilateral activity between India and the US – has now been broadened to include other members from the Quad. The experience of engaging in joint operations with world's leading navies will help India enhance its operational skills. It also holds biennial multilateral MILAN exercises with navies from South Asia and Southeast Asia.<sup>45</sup> At the bilateral level, the country also regularly conducts exercises with Singapore, Japan, and France, focusing on a wide range of naval operations including Anti-Submarine Warfare (ASW), maritime domain awareness, amphibious operations, and so on.<sup>46</sup>

India's foreign policy approach towards the Asia-Pacific is enshrined in its Act East Policy. Under Modi's leadership, the government's increased focus on exerting influence in the region and beyond manifests the revisionist

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<sup>43</sup> David Brewster, "Reading Room: Maritime Security in the Indo-Pacific" (Deakin: Australian Institute of International Affairs, 2017), [http://www.internationalaffairs.org.au/australian\\_outlook/reading-room-maritime-security-indo-pacific/](http://www.internationalaffairs.org.au/australian_outlook/reading-room-maritime-security-indo-pacific/).

<sup>44</sup> Zamir Akram, "The Indo-Pacific and Pakistan," *Express Tribune*, June 12, 2018, <https://tribune.com.pk/story/1732923/6-indo-pacific-pakistan/>.

<sup>45</sup> "Multilateral Naval Exercise Begins in Andamans," *Times of India*, March 6, 2018, <https://timesofindia.indiatimes.com/india/multi-lateral-naval-exercise-begins-in-andamans/articleshow/63191024.cms>. Milan Exercises were last held in March 2018 at Andaman and Nicobar Islands. The other participating countries included Australia, Bangladesh, Indonesia, Malaysia, Myanmar, Singapore, Sri-Lanka, and Thailand.

<sup>46</sup> Rehman, "India's Fitful Quest for Seapower," 233. India conducts JIMEX exercises with Japan, SIMBEX exercises with Singapore, and VARUNA exercises with France.

tendencies or at minimum, what David Brewster calls, a 'proprietary attitude.'<sup>47</sup>

### **Maritime Diplomacy – A Pathway to Extended Reach**

The Modi government is determined to establish dominance over Small Island Developing States (SIDS) like Mauritius and Seychelles, as well as Sri Lanka. India has also introduced the Security and Growth for All in the Region (SAGAR) initiative, based on five-pronged approach that includes deepening economic and security cooperation; strengthening maritime security capacities; advancing peace and security; responding to emergencies; and respect for international maritime rules and norms by all countries.<sup>48</sup> The SAGAR initiative would help India develop ties with other regional States and also to build maritime infrastructure, including ports, in those countries. While China seeks to connect regional states through its Belt and Road Initiative (BRI), the SAGAR project appears to be a countermove to dilute China's increasing influence; and as a tool to reach out to strategically important countries in the IO.<sup>49</sup>

Seeing the objectives of SAGAR initiative in line with India's aspirations to emerge as a 'net security provider' in the region, the two appear complementary to each other. The term 'net security provider' is increasingly gaining salience in policy as well as academic circles. However, there is little discussion on what this term really entails. A country claiming to provide security to other states is required to offer assistance in capacity building, military cooperation, respond to possible crises, and to deploy forces to stabilise a conflict situation.<sup>50</sup> The US and India, in pursuit of containing

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<sup>47</sup> David Brewster, "India and China at Sea: A Contest of Status and Legitimacy in the Indian Ocean," *Asia Policy* 22 (2016): 4-10 (4), DOI:10.1353/asp.2016.0030.

<sup>48</sup> P. K. Gosh, "Maritime Security Trilateralism: India, Sri Lanka and Maldives," in *Sub-Regional Cooperation in South Asia: India, Sri Lanka and Maldives*, ed., Venugopal B. Menon and Joshy M. Paul (New Delhi: Vij Books, 2017), 65.

<sup>49</sup> Anil Chopra, "Sagarmala or SAGAR: A Maritime Dilemma," *Gateway House*, April 14, 2016, <https://www.gatewayhouse.in/sagarmala-or-sagar-our-maritime-dilemma/>.

<sup>50</sup> Anit Mukherjee, "India as a Net Security Provider: Concept and Impediments" (brief, S. Rajaratnam School of International Studies, Singapore, 2014), 2, [https://www.rsis.edu.sg/wp-content/uploads/2014/09/PB\\_140903\\_India-Net-Security.pdf](https://www.rsis.edu.sg/wp-content/uploads/2014/09/PB_140903_India-Net-Security.pdf).

China, are expanding the latter's influence over other regional states under the pretext of security.

India has been constructing the first overseas naval base in Seychelles,<sup>51</sup> a country strategically located in the IO, which will allow it to monitor the SLOCs and to support naval operations by the coastal radar system. It plans to invest USD 550 million in building the base; and has already provided Seychelles with a maritime reconnaissance aircraft, two helicopters and a coast guard intercept boat.<sup>52</sup> It has also installed a coastal surveillance radar system on one of Seychelles' islands to gather intelligence.<sup>53</sup>

Similarly, India's engagement in the South China Sea (SCS) is also significant. New Delhi believes that it is imperative to protect its vested economic interests in the region. For instance, more than 55 per cent of its trade passes through the SCS.<sup>54</sup> Since this area is of primary interest for the US,<sup>55</sup> combined Indo-US interests in SCS can create challenges for China. India's joint naval exercises, friendly port calls, and military cooperation with countries like Singapore, Brunei, Malaysia, Indonesia, the Philippines, and Vietnam give Indian Navy access to distant waters. In July 2012, India established a deep water maritime facility, INS Baaz, in Campbell Bay.<sup>56</sup> Establishment of the naval base at the most southerly part of Andaman Islands enables its Navy to conduct regular surveillance operations closer to the SCS, use the facility as a forward operating base and logistics hub for naval

<sup>51</sup> Rezaul H. Laskar, "India, Seychelles Agree to Work on Assumption Island Naval Base Project," *Hindustan Times*, June 25, 2018, <https://www.hindustantimes.com/india-news/india-seychelles-agree-to-work-on-assumption-island-project-respect-concerns/story-0nlhY13WxOgbJDTdGZJjaL.html>.

<sup>52</sup> Abhishek Mishra, "Has India's Plan to Build a Military Base in Seychelles Stalled?" *Diplomat*, March 29, 2018, <https://thediplomat.com/2018/03/has-indias-plan-to-build-a-military-base-in-seychelles-stalled/>.

<sup>53</sup> Ibid.

<sup>54</sup> Ministry of External Affairs, Government of India, "Question No.808 Trade through South China Sea," February 9, 2017, <https://www.mea.gov.in/rajya-sabha.htm?dtl/28041/QUESTION+NO808+TRADE+THROUGH+SOUTH+CHINA+SEA>.

<sup>55</sup> Jeffrey Bader, Kenneth Lieberthal, and Michael McDevitt, "Keeping the South China Sea in Perspective" (brief, Brookings Institution, Washington, D.C., 2014), 6, <https://www.brookings.edu/wp-content/uploads/2016/06/south-china-sea-perspective-bader-lieberthal-mcdevitt.pdf>.

<sup>56</sup> Abhijit Singh, "In the Far Seas: Projecting India's Naval Power," in *India's Naval Strategy and Asian Security*, eds. Anit Mukherjee and C. Raja Mohan (Oxon: Routledge, 2016), 70.

platforms.<sup>57</sup> Furthermore, India and Vietnam signed an agreement in 2011 to enhance cooperation in exploration of oil in the SCS waters.<sup>58</sup> Vietnam offers assistance as well as access to India to use its Exclusive Economic Zone (EEZ) for these endeavours.<sup>59</sup> These developments indicate how India is diplomatically engaging with other states to pursue its maritime strategy that seeks to exert influence beyond its immediate waters.

### **Naval Modernisation Plans: An Expanding Force Structure**

The Indian Navy's development strategy focuses significantly on enhancing and modernising naval capabilities. The country has embarked upon a comprehensive modernisation plan to produce platforms equipped with advanced technologies and stealth capabilities. According to Maritime Capability Perspective Plan 2007-22, India plans to acquire more than 160 ships, 40 major combatants, and 400 aircrafts.<sup>60</sup> This also includes the development of a fleet of 28 conventional and nuclear submarines. Since the nuclear ballistic missile submarine (SSBN) INS *Arihant* is already operational, the government plans to develop five more SSBNs of this kind under the Advanced Technology Vessel (ATV) programme.<sup>61</sup> The programme, under the joint supervision of the Indian Navy, Bhabha Atomic Research Centre (BARC) and Defence Research & Development Organization (DRDO), has been under development since 1989. INS *Arihant*, the first indigenously produced SSBN under the ATV project is specifically designed to carry as many as 12 K-15 Sagarika submarine-launched-ballistic-missiles (SLBMs)

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<sup>57</sup> Ibid.

<sup>58</sup> Harsh V. Pant, *Indian Foreign Policy: An Overview* (Manchester: Manchester University Press, 2016), 137.

<sup>59</sup> Dipanjan Roy Chaudhury, "Vietnam Invites India to Explore Resources in Disputed South China Sea Region," *Economic Times*, July 12, 2018, <https://economictimes.indiatimes.com/news/defence/vietnam-invites-india-to-explore-resources-in-disputed-south-china-sea-region/articleshow/51123742.cms>.

<sup>60</sup> CFR, *Building India's Navy: Requirements and Indigenous Capability* (New Delhi: Confederation of Indian Industry, 2010), 25.

<sup>61</sup> "India Says Its Nuke-Missile-Carrying Submarine Fully Operational," *Sputnik News*, May 15, 2018, <https://sputniknews.com/military/201805151064469047-india-announces-nuclear-submarine/>.

having a range of 700 kilometres.<sup>62</sup> It is reported that Russia's NPO *Mashinostroeyenia* provided India with engineering services and necessary equipment to develop and launch the *Sagarika* missile, thereby undermining the Missile Technology Control Regime (MTCR) guidelines.<sup>63</sup>

The most significant aspect of production of INS *Arihant* is that it marked the first instance when a littoral state from the IOR initiated nuclearisation of naval assets. India considers this development to be the part of its overall development of the nuclear triad, but this has serious implication for Pakistan and China.<sup>64</sup> This development forced Pakistan to take remedial measures and develop its own sea-based nuclear deterrent, with the development of submarine-launched cruise missile (SLCM) *Babur-3*.<sup>65</sup> After the development of a strong fleet of SSBNs, India would have a significant advantage over Pakistan in terms of sea-based nuclear deterrent capabilities. In terms of nuclear-powered attack submarines (SSNs), India has acquired INS *Chakra* on lease from Russia.<sup>66</sup> The naval modernisation plans also include indigenous production of SSNs. It has been reported that India's Cabinet Committee on Security cleared a joint DRDO-BARC navy project in 2015 to indigenously build six SSNs at an estimated cost of USD12 billion, making it the country's single largest defence project.<sup>67</sup>

<sup>62</sup> NTI, "India Submarine Capabilities" (Washington, D.C.: Nuclear Threat Initiative, 2015), accessed September 25, 2018, <http://www.nti.org/analysis/articles/india-submarine-capabilities/>.

<sup>63</sup> NTI, "India: Missile" (Washington, D.C.: Nuclear Threat Initiative, 2016), accessed September 25, 2018, <http://www.nti.org/country-profiles/india/delivery-systems/>.

<sup>64</sup> Diana Wueger, "India's Nuclear Armed Submarines: Deterrence or Danger?" *The Washington Quarterly* 39, no. 3 (2016): 77-90 (81), <https://doi.org/10.1080/0163660X.2016.1232636>.

<sup>65</sup> Ankit Panda, "Pakistan Conducts Second Test of Babur-3 Nuclear-Capable Submarine-Launched Cruise Missile," *Diplomat*, April 1, 2018, <https://thediplomat.com/2018/04/pakistan-conducts-second-test-of-babur-3-nuclear-capable-submarine-launched-cruise-missile/>. Pakistan conducted the second successful test of Babur-3 to bolster its sea-based nuclear deterrent.

<sup>66</sup> Wueger, "India's Nuclear Armed Submarines: Deterrence or Danger?" 89.

<sup>67</sup> Rajat Pandit, "Govt Approves Construction of 7 Stealth Frigates, 6 Nuclear-Powered Submarines," *Times of India*, February 18, 2015, <https://timesofindia.indiatimes.com/india/Govt-approves-construction-of-7-stealth-frigates-6-nuclear-powered-submarines/articleshow/46281364.cms>; and Sandeep Unithan, "From India Today Magazine: A Peek into India's Top Secret and Costliest Defence Project, Nuclear Submarines," *India Today*, December 10, 2017, <https://www.indiatoday.in/magazine/the-big->

India's fleet of conventional submarines has been facing setbacks in terms of their operability and maintenance. The Navy's 14 diesel-electric submarines comprise of four German *Shishumar* class submarines and 10 Russian *Sindhughosh* kilo class submarines.<sup>68</sup> The three major partners of India in the development of a conventional submarine fleet include Russia, France, and Germany. Germany has supplied India with four U-209 diesel electric submarines which were recently retrofitted locally to extend their service life. Germany has also supplied anti-submarine sonar and diesel engines for the Navy's conventional submarines. The Comptroller and Auditor General observed in a report published in 2010 that 75 per cent of the country's submarine fleet has already completed most of its estimated operational life, thus, requiring induction of new submarines.<sup>69</sup> To overcome these shortcomings, India has planned construction of six French *Scorpene* class submarines, which is a joint venture of Mazagon Docks Ltd (MDL) Mumbai and a French firm Direction des Constructions Navales Services.<sup>70</sup> These submarines will be built by MDL in India with full rights of complete Transfer of Technology.<sup>71</sup> Such deals would give Indian defence industry the technical know-how about submarine hull fabrication as well as systems integration.

After China developed a strong defence production base of its own, India has emerged as the largest recipient of Russian arms exports in the world. The Stockholm International Peace Research Institute (SIPRI) observes

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story/story/20171218-india-ballistic-missile-submarine-k-6-submarine-launched-drdo-1102085-2017-12-10. Media reports suggested that the construction of nuclear-powered attack submarines has started.

<sup>68</sup> "Submarines Active," *Indian Navy Submarines*, accessed February 22, 2019, <https://www.indiannavy.nic.in/content/submarines-active>.

<sup>69</sup> Comptroller and Auditor General of India, Supreme Audit Institution of India, *Ministry of Defence*, report no. 16 (Government of India, 2010), [http://saiindia.gov.in/english/home/our\\_products/audit\\_report/Government\\_Wise/union\\_audit/recent\\_reports/union\\_compliance/2010\\_2011/Defence\\_Services/Report\\_no\\_16/chap\\_2.pdf](http://saiindia.gov.in/english/home/our_products/audit_report/Government_Wise/union_audit/recent_reports/union_compliance/2010_2011/Defence_Services/Report_no_16/chap_2.pdf).

<sup>70</sup> Priya Tyagi, "Aerospace and Defence News," in *Indian Defence Review*, ed. Bharat Verma 27, no. 3 (2012): 59-72 (52).

<sup>71</sup> Shaurya Karanbir Gurung, "Indian Navy Launches Third Scorpene Class Submarine in Mumbai," *Economic Times*, January 31, 2018, <https://economictimes.indiatimes.com/news/defence/third-scorpene-class-submarine-karanj-to-be-launched-today/articleshow/62715404.cms>.

that India's defence imports from Russia during 2002-12 amounted to over USD21 billion as compared to China's imports from Russia worth USD19.8 billion.<sup>72</sup> Such joint production has also helped India acquire *Talwar* class frigates armed with eight *BrahMos* supersonic missiles that can be launched from land, air and surface ships capable of carrying multiple types of warheads.<sup>73</sup> Equipped with Anti-Ship Cruise Missiles (ASCMs), these frigates can be highly useful in the event of conflict. Under Project 17A, MDL has already started construction of the first of seven stealth frigates that India expects to produce by 2022-30.<sup>74</sup> Construction of six *Talwar* class frigates is currently underway at the Yantar Shipyards, Russia.<sup>75</sup>

The Indian Navy currently operates 11 destroyers of three different classes including Delhi Class, Rajput Class, and Kolkata Class. Delhi class destroyers are guided missile destroyers and are built in assistance with the Russian Severnaya Design Bureau.<sup>76</sup> Kolkata class destroyers can be armed with 16 vertically launched *BrahMos* supersonic ACSMs and Barak-8 surface-to-air missiles (SAMs).<sup>77</sup> Furthermore, the Indian Navy currently operates 23 corvettes of five different classes. These lightly armed vessels perform multiple roles including ASW operations and coastal security. With Russia's assistance, India plans to acquire 12 *Kamorta* class corvettes that are currently under construction.<sup>78</sup>

In the domain of aircraft carriers, New Delhi plans to build three carriers, each of which would serve as a centre of a Carrier Battle Group (CBG) to contribute towards acquiring sea-control.<sup>79</sup> A fleet of three carriers

<sup>72</sup> Quoted in Chandra Rekha, *India-Russia Post-Cold War Relations: A New Epoch of Cooperation* (New York: Routledge, 2017), 38.

<sup>73</sup> Range deliberately declared at 290 km in order to comply with MTCR's strictures.

<sup>74</sup> "India Revealed P-17A Frigate Configuration at Defexpo 2018," *World Naval News*, April 30, 2018, <https://worldnavalnews.com/2018/04/30/india-revealed-p-17a-frigate-configuration/>.

<sup>75</sup> Richard A. Bitzinger, "Comparing U.S. and Indian Naval Modernization," in *Naval Modernization in South-East Asia: Nature, Causes and Consequences*, eds. Geoffrey Till and Jane Chan (Oxon: Routledge, 2014), 98.

<sup>76</sup> Vijay Sakhujia, *Asian Maritime Power in the 21<sup>st</sup> Century: Strategic Transactions – China, India and Southeast Asia* (Singapore: Institute of Southeast Asian Studies, 2011), 100.

<sup>77</sup> Bitzinger, "Comparing U.S. and Indian Naval Modernization," 98.

<sup>78</sup> *Ibid.*

<sup>79</sup> Integrated Headquarters, Ministry of Defence (Navy), GoI, *Ensuring Secure Seas: Indian Maritime Security Strategy*, 138.

would give the Indian Navy capability to attack an adversary's maritime assets with confidence, to protect SLOCs, and to project power in distant waters. India's INS *Vikramaditya* is in service, while the indigenously produced INS *Vikrant* is also in last stages of its development.<sup>80</sup> The second indigenously built aircraft carrier, INS *Vishal*, is also in development phase. Initially, it was to be equipped with advanced technologies like naval nuclear propulsion and electromagnetic aircraft launch systems (EMALS).<sup>81</sup> However, it will have an Integrated Electric Propulsion System instead of a nuclear reactor as BARC reportedly lags behind on the plans to develop a nuclear reactor for an aircraft carrier.<sup>82</sup>

Besides these developments, India is actively working to add a new dimension to naval warfare – the unmanned underwater vehicles (UUVs). It reportedly plans to raise a squadron of autonomous UUVs by 2021 and is in the process of releasing an official tender for procurement of eight high performance UUVs.<sup>83</sup> The major roles performed by high-tech unmanned submersibles include ASW operations, mine detection and countermeasure operations, seabed mapping, support amphibious assault, payload delivery, naval intelligence, surveillance and reconnaissance (ISR) missions.<sup>84</sup> UUVs can also perform a variety of communication and navigation functions, including underwater network nodes for data transmission, underwater connectors, providing link between subsurface platforms and navigation systems. Autonomous Underwater Vehicles (AUVs) - equipped with passive sonar devices - can undertake ASW operations, thus providing the nuclear-powered attack submarines with an enhanced situational awareness

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<sup>80</sup> Rekha, *India-Russia Post-Cold War Relations*, 38.

<sup>81</sup> Ashley J. Tellis, "Making Waves: Aiding India's Next-Generation Aircraft Carrier" (paper, Carnegie Endowment for International Peace, Washington, D.C., 2015), 16, [https://carnegieendowment.org/files/making\\_waves.pdf](https://carnegieendowment.org/files/making_waves.pdf).

<sup>82</sup> "Navy's Dream of Nuclear-Powered Aircraft Carrier Suffers a Hit; BARC Says it Will Take 15-20 Years," *India.com*, October 27, 2017, <https://www.india.com/news/india/ins-vishal-not-be-nuclear-powered-as-barc-says-15-years-will-be-needed-to-develop-reactor-2571054/>.

<sup>83</sup> "Indian Navy Looks to Raise High Performance Unmanned Submarine Squadron by 2021," *Sputnik News*, July 26, 2018, <https://sputniknews.com/asia/201807261066709924-indian-navy-unmanned-submarine/>.

<sup>84</sup> G.N. Roberts and R. Sutton, eds., *Advances in Unmanned Marine Vehicles* (London: Institution of Engineering and Technology, 2006), <http://dlib.scu.ac.ir/bitstream/Ebook/58032/2/0863414508.pdf>.

environment.<sup>85</sup> Traditional active sonars bounce sound waves to detect objects and easily give away their presence. However, passive sonar simply listens for sound from adversarial platforms and preserves stealth.<sup>86</sup> The Law of the Sea allows UUVs to operate freely in both the high seas and the EEZ, while posing no threat to the territorial integrity of the coastal State. However, the Law requires them to ‘navigate on the surface and show their flag’ in territorial waters of a foreign country.<sup>87</sup>

For the past few years, the DRDO has been designing and developing multiple AUVs to meet futuristic requirements of the Indian Navy. In April 2016, DRDO developed an autonomous underwater prototype vehicle capable of operating at depths of up to 300 metres below sea level.<sup>88</sup> Manohar Parrikar, the Defence Minister, informed the Indian Parliament in 2015 that DRDO was capable of designing various kinds of UUVs from hand-held slow speed ones, to military class platforms.<sup>89</sup> India is also producing submadrones - a swimming spy plane - that can be launched from submarine tubes and deployed in reconnaissance mode for a fixed time period.<sup>90</sup> There are currently 100 small and large industries in India that are making navigation and communication systems as part of ASW for Indian naval warships. Kerala-based 25 of these industries are collaborating with Kochi-based Naval Physical and Oceanographic Laboratory (NPOL) to develop a sonar system.<sup>91</sup> With the growth of this industry, India may be able to export UUVs to its

<sup>85</sup> For details, see Yannick Allard and Elisa Shahbazian, *Unmanned Underwater Vehicle (UUV) Information Study*, report (Dartmouth: Defence Research & Development Canada, Atlantic Research Centre, 2014), [http://cradpdf.drdc-rddc.gc.ca/PDFS/unc199/p800838\\_A1b.pdf](http://cradpdf.drdc-rddc.gc.ca/PDFS/unc199/p800838_A1b.pdf).

<sup>86</sup> Randall McPartland, *Understanding Waves and Wave Motion* (New York: Cavendish Square Publishing, 2015), 37.

<sup>87</sup> Andrew H. Henderson, “Murky Waters: The Legal Status of Unmanned Undersea Vehicles,” *Naval Law Review* 53 (2006): 55-72, <https://apps.dtic.mil/dtic/tr/fulltext/u2/a477368.pdf>.

<sup>88</sup> “Indian Navy Looks to Raise High Performance Unmanned Submarine Squadron by 2021,” *Sputnik News*.

<sup>89</sup> Huma Siddiqui, “Keeping an Eye, Underwater,” *Financial Express*, April 6, 2015, <https://www.financialexpress.com/economy/keeping-an-eye-underwater/60807/>.

<sup>90</sup> Abhijit Singh, *Unmanned and Autonomous Vehicles and Future Maritime Operations in Littoral Asia*, report no. 19 (New Delhi: Observer’s Research Foundation, 2016), 9, [https://www.orfonline.org/wp-content/uploads/2016/07/ORF\\_SpecialReport\\_191.pdf](https://www.orfonline.org/wp-content/uploads/2016/07/ORF_SpecialReport_191.pdf).

<sup>91</sup> Sudha Nambudiri, “25 Industries from Kerala Assisting DRDO in Developing Indigenous Sonar,” *Times of India*, March 7, 2018, <https://timesofindia.indiatimes.com/city/kochi/25-industries-from-kerala-contributing-drdo-in-developing-indigenous-sonar/articleshow/63195920.cms>.

strategic partners in Southeast Asia. After its inclusion into MTCR and Wassenaar Arrangement, India may have access to dual-use and sophisticated technologies that would further bolster its production of combat Unmanned Vehicles (UMVs).

The naval air arm is also undergoing extensive modernisation and induction processes. The current Indian naval arm relies on MiG-29Ks for combat duties, whereas there are speculations that the Navy might procure the maritime version of the *Dassault Rafale* once its planned *Vishal* aircraft carrier is completed. Indian Navy would reportedly acquire 57 air platforms for the upcoming INS *Vishal*.<sup>92</sup> The future induction of this aircraft would have tactical and strategic gains as the type is far more advanced in terms of its sensor suite, and the range and lethality of its weapon systems and its overall flight envelope when compared to the MiG-29Ks.

As the US influence and access to India's defence market increases, the Indian Navy might also explore the option of evaluating the FA-18s and derivatives for its carrier-based fighter requirements.<sup>93</sup> In recent years, Boeing Corporation has been keen to explore India as a potential hub for the manufacturing of its products and at times offered complete transfer of technology for the FA-18.<sup>94</sup> India might take up this offer under its ambitious 'Make in India' vision.

For surveillance and reconnaissance, the P-81 Long-Range Maritime Patrol Aircrafts (MPAs) are the current mainstay replacing the Soviet designed and built *Tupolev-142s*. The P-8Is have advanced detection sensors as well as capability to engage surface and sub-surface threat with *Harpoon* missiles and torpedoes.<sup>95</sup> Indian investment in airborne anti-submarine

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<sup>92</sup> Abraham Ait, "US and French Fighters Contend for a Place Aboard India's New Aircraft Carrier," *Diplomat*, February 24, 2018, <https://thediplomat.com/2018/02/us-and-french-fighters-contend-for-a-place-aboard-indias-new-aircraft-carrier/>.

<sup>93</sup> Franz-Stefan Gady, "Boeing Aims for Indian Navy's 57 New Carrier-based Multirole Fighters Contract," *Diplomat*, July 25, 2018, <https://thediplomat.com/2018/07/boeing-aims-for-indian-navys-57-new-carrier-based-multirole-fighters-contract/>.

<sup>94</sup> Nayanima Basu, "We will Offer the Latest F/A-18: Boeing India Chief," *Hindu Business Line*, April 11, 2018, <https://www.thehindubusinessline.com/news/we-will-offer-the-latest-fa-18-boeing-india-chief/article23505309.ece>.

<sup>95</sup> "Indian Navy Bids Adieu to TU 142M Patrol and Anti-Sub Aircraft," *Economic Times*, July 14, 2018, <https://economictimes.indiatimes.com/news/defence/indian-navy-bids-adieu-to-tu-142m-patrol-and-anti-sub-aircraft/articleshow/57890659.cms>.

capability is set to be bolstered by the planned induction of *Kamov-226* helicopters.<sup>96</sup> In the field of UAVs, Indian Ministry of Defence reportedly plans to procure around 5000 UAVs in the next ten years and the Navy would have several squadrons of UAVs, including Vertical Take-Off and Landing (VTOL) UAVs, High-Altitude and Long Endurance (HALE) as well as Medium-Altitude and Long Endurance (MALE) UAVs.<sup>97</sup> These UAVs would significantly enhance the Navy's ability to carry out reconnaissance and maritime surveillance missions, and provide precision targetting support. Particularly VTOL UAVs would have the ability to expand the reach of a ship's sensor to 100 nautical miles.<sup>98</sup> It is also worth mentioning that the Indian Navy has complemented these modernisation efforts with advancements in the field of communication. The Indian Space Research Organization (ISRO) launched a dedicated satellite, GSAT-7, in August 2013. Besides providing real-time networking of naval platforms deployed at sea, this satellite allows the Navy to establish 3500-4000 kilometre footprint in the IO.<sup>99</sup>

### Implications for Pakistan

India's overall naval modernisation will have long-term effects on strategic stability in the IOR, and nuclear deterrence in South Asia. To equip its fleet of SSBNs, India would produce more warheads for its SLBMs and SLCMs that would not only force an arms race in the region, but also make its claims of exercising minimalism in its stated nuclear doctrine questionable. The fleet of SSBNs will soon be able to cover Pakistan with their ballistic missiles fired

<sup>96</sup> Manu Pubby, "India and Russia to Jointly Manufacture Kamov 226 Helicopter under 'Make in India'," *Economic Times*, July 14, 2018, <https://economictimes.indiatimes.com/news/defence/india-and-russia-to-jointly-manufacture-kamov-226-helicopter-under-make-in-india/articleshow/50316231.cms>.

<sup>97</sup> Ajay Banerjee, "India could be Gainer as US Changes Policy on Supply of Armed Drones," *Tribune*, April 20, 2018, <https://www.tribuneindia.com/news/nation/india-could-be-gainer-as-us-changes-policy-on-supply-of-armed-drones/576937.html>.

<sup>98</sup> Iskander Rehman, "Tomorrow or Yesterday's Fleet? The Indian Navy's Emerging Operational Challenges," in *India's Naval Strategy and Asian Security*, eds. Anit Mukherjee and C. Raja Mohan (Oxon: Routledge, 2016), 54.

<sup>99</sup> Marco Aliberti, *India in Space: Between Utility and Politics*, Studies in Space Policy (Vienna: Springer International Publishing, 2018), 181.

from either the Eastern or Western quadrant of the IO. The development of K-4 SLBM, having the range of 3500 km is significant in this regard, for South Asian countries, especially Pakistan.

India's sea-launched missile capability should also be seen along with its land and air inventories. As some of its systems remain reportedly at a launch-on-warning mode, the SLBMs are an additional step towards an aggressive nuclear posture. The ready arsenal aboard SSBNs, cannisterised missiles and Ballistic Missile Defence (BMD) capability is a dangerous mix that may encourage India towards pre-emptive/decapitate tendencies. The acquisition of these capabilities is particularly dangerous in the backdrop of possible revision of India's nuclear No First Use (NFU) declaration. Experts suggest that the country may consider carrying out pre-emptive nuclear counterforce attacks against its adversaries.<sup>100</sup> This is particularly more plausible in the presence of a sea-based assured second-strike capability.

Such developments have compelled neighbouring Pakistan, given the chequered conflictual history between the two countries, to take remedial measures and develop SLCM *Babur-3*.<sup>101</sup> Though it is generally believed that a country's second-strike capability augments the deterrent relationship between the two nuclear states, this aspect bolsters deterrence only if both have invulnerable and credible capability to launch a second-strike.<sup>102</sup> Pakistan's decision to develop sea-based nuclear capability should be seen in this regard. While India's naval developments have already shifted nuclear rivalry into oceanic waters, any irresponsible or ambitious use of nuclear submarines, along with other aggressive naval developments mentioned earlier, would also impact 'crisis stability' between the two states.<sup>103</sup> Given

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<sup>100</sup> Sameer Lalwani and Hannah Haegeland, "The Debate over Indian Nuclear Strategy is Heating Up," *War on the Rocks*, April 5, 2017, <https://warontherocks.com/2017/04/the-debate-over-indian-nuclear-strategy-is-heating-up/>.

<sup>101</sup> "Pakistan Fires First Submarine Launched Nuclear Missile," *Express Tribune*, January 9, 2017, <https://tribune.com.pk/story/1289288/pakistan-successfully-test-fires-babur-iii-cruise-missile/>. Pakistan test fired its first submarine launched cruise missile *Babur-3* in January 2017.

<sup>102</sup> Andrew Brown and Lorna Arnold, "The Quirks of Nuclear Deterrence," *International Relations* 24, no. 3 (2010): 293-312 (300), DOI: 10.1177/0047117810377278.

<sup>103</sup> Sufian Ullah, "India's Naval Nuclearization: Repercussions for Crisis Stability," *South Asian Voices*, June 27, 2018, <https://southasianvoices.org/indias-naval-nuclearization-repercussions-stability/>.

that the navies of India, China and Pakistan do not currently have any effective communication mechanisms to keep conflicts from escalating, possible skirmishes like the collision of PNS *Babur* and INS *Godavari* may intensify conflict to undesirable levels.<sup>104</sup>

India's growing control over the SLOCs may help it to establish sea-control and dominance contrary to the interests of China and Pakistan.<sup>105</sup> The latter, in particular, would be forced to take appropriate security measures in order to safeguard its vital trade and maritime interests in its extended EEZ. Considering India's aspirations to extend its naval reach to the Straits of Hormuz, the acquisition of greater ability to conduct enduring operations at sea would increase the possibility of interactions between the adversarial navies. Should India continue to observe opacity with regards to co-mingling of strategic and conventional assets, such an ambiguity may result in escalation of a military confrontation from conventional to nuclear level.<sup>106</sup>

Under the self-assuming role as a blue water navy, India aims to establish itself as a regional policeman and adopt an offensive posture, whereby it is likely to aggressively use naval military capabilities to pursue its perceived interests. As India seeks to dominate the IO, it may seek to deny the same to China in the SCS in the coming years. Through its Act East policy, India aims to enhance its role around Strait of Malacca and SCS that would give it access to Western Pacific where it may operate in joint operations with the US Navy. As mentioned earlier, the Indian Navy is steadily ingressing in this region through multiple activities including participation in bilateral naval exercises – such as MILAN – and establishing defence ties with countries like Vietnam, Brunei and Philippines.

A naval force structure centred around three aircraft carriers, in comparison to limited naval capabilities of other regional states, is poised to assume an offensive posture. Besides, the operational advantages of sea-based airpower that may provide aerial support to Indian Army's integrated battle

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<sup>104</sup> Ibid.

<sup>105</sup> For details, see David Brewster, *India's Ocean: The Story of India's Bid for Regional Leadership*, 1st ed., Routledge Security in Asia Pacific Series (New York: Routledge, 2014), 123. David Brewster argues that the ability to control SLOCs would give India a bargaining chip to deal with rival powers.

<sup>106</sup> Ibid.

groups,<sup>107</sup> an aircraft carrier represents concentration of power in the form of CBGs to ensure command of the sea. From Pakistan's perspective, the implementation of Cold Start Doctrine (CSD) may involve Indian Navy taking an aggressive posture and attempt to impose a distant naval blockade against it.<sup>108</sup> Given the higher risks of limited military conflict between the two forces, India may use its CBGs in an offensive mode to target Pakistan's military facilities inland and interdict its maritime trade passing through SLOCs, particularly the Strait of Hormuz. In such a scenario, Pakistan's anti-access and area-denial capabilities would have a key role to play in neutralising CBGs' offensive deployment.

Another implication in context of India's growing AUV capabilities can be a shift in its ASW operations from defensive to offensive missions. By targetting submarines on patrol, AUVs can undermine their advantages in terms of high endurance, speed and inherent stealth. If deployed in packs, AUVs can make it harder for submarines to escape detection. These autonomous vehicles offer attractive alternative to submarines in operating in the far-littoral waters. Enhanced capabilities in this field may provide India a safer option to significantly pursue adventurism in adversarial waters. Further, the chances of ambitious use of naval platforms and skirmishes at sea may also increase. By integrating AUVs with submarine systems, the Indian Navy may contemplate conducting naval operations closer to Pakistan's coastal waters, thus, increasing the chances of misadventure, possible coercion between the adversarial navies, and inadvertent escalation of military conflict. As Pakistan's sea-based nuclear programme and its fleet of submarines grow, the greatest challenge to their operations will be posed by India's growing ASW capabilities.

The induction of naval air fighters may also be used to complement the second-strike element where free-fall nuclear bombs and air-launched cruise missiles may be deployed on aircraft carrier, ensuring survivability as well as providing flexibility in target engagement. Given the rapid modernisation of the Indian Navy, it is not farfetched to believe that it might have a very

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<sup>107</sup> Muhammad Azam Khan, "India's Cold Start is Too Hot," U.S. Naval Institute Proceedings 137/3/1,297 (2011): 45, quoted in Ben Wan Beng Ho, "The Aircraft Carrier in Indian Naval Doctrine," *Naval War College Review* 71, no. 1 (2018): 1-21.

<sup>108</sup> Khan, "India's Cold Start is Too Hot."

important role in the Proactive or CSD operations where it may be employed to open the coastal front against Pakistan, further pressurising its numerically weak military.

### **Conclusion**

As India aspires to acquire greater share in international politics, its maritime strategy is poised to help India gain pre-eminence in oceanic waters. With burgeoning naval capabilities, the country's envisaged blue water navy seeks to exert sea-command not only in the IO, but also in the Western Pacific. Under the guise of 'net security provider, its self-assumed role of a regional policeman is likely to result in an offensive naval posture. The Modi government's emphasis on establishing closer strategic and economic linkages with IOR's littoral states and Southeast Asian nations is a manifestation of this aspiration. As a new regional construct, the term 'Indo-Pacific' signifies the shared objective of India and the US in containing the rise of China. This commonality of interest is helping New Delhi acquire advanced naval capabilities that can consequently alter the strategic environment in its favour. Besides this, the possible aggressive use of naval capabilities would increase the risks of conflict escalation, and thus, undermine 'crisis stability.' This suggests that regional stability may come under more stress as India continues to amass highly advanced naval forces and adopt aggressive maritime posture in pursuit of its interests. ■