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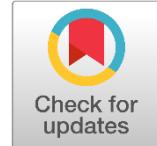
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# Nuclearization of Indian Ocean Region: Implications for Strategic Stability in South Asia

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### ABSTRACT

This research focuses on nuclearization of the Indian Ocean Region (IOR) by India and its impact on strategic stability between India and Pakistan. The research question addressed in this paper is how nuclearization of IOR by India can have negative implications for South Asian strategic stability? With the help of major powers through Military Logistic Support Agreements and by being a member of alliances like Quadrilateral Security Dialogue, India will have access to more sophisticated technologies in the IOR. This Indian naval nuclear and military exceptionalism will assist India to use coercive strategies and nuclear blackmail *vis-à-vis* Pakistan. This will negatively impact strategic stability between India and Pakistan. Pakistan will have to consequently acquire assured second-strike capability as well as, invest in antisubmarine warfare capabilities including swarms of unmanned underwater vehicles controlled by artificial intelligence. The findings indicate that as India will not revise its naval nuclear ambitions, Pakistan must work for a progressing economic outlook so that it can opt for assured second strike capability in the future. The research methodology utilized in this article is qualitative. Both primary and secondary sources of data were employed in this research. Interviews were conducted for the collection of primary data.

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## 1. INTRODUCTION

Since 2007, the term Indo-Pacific has been used by Western scholars and policymakers alike. Strategic discourse from U.S., Australia and the UK mentions Indian Ocean which has been favoured by India as it considers Indian Ocean as India's Ocean (Ullah, 2019). This ocean is not only linked to Indian coast, but also East coast of Africa, Southern coast of Arabia, and Western shores of Iran and Pakistan. Moreover, this Oceanic expense also touches the coastlines of Malaysia, Indonesia, and Australia. It can be deduced through open-source research that in 1967, Anthony Hart Harrigan made the case in the US about the Indian Ocean Region (IOR) to be called Afro-Asian Ocean

instead (Anthony, Harrigan, 1964). He was of the view that the West knows very little about this oceanic expense. He also predicted that this ocean will be an Achilles Heel of the Free World's defence system (Poonawala, 1971).

The IOR has remained and is likely to remain a major focus for the extra regional nuclear weapon states. It is evident from the current US National Security Strategy (NSS) and Nuclear Posture Review (NPR) that the US seeks to undermine Chinese presence and influence in the IOR through building alliances and regional partners. In this regard, US is also supporting nuclearization of IOR by India – a first littoral state within South Asia – through acquisition of assured second strike capability (Khan & et al, 2023).

An assured second-strike capability is “the ability to deter deliberate nuclear attack by maintaining a highly reliable ability to inflict an unacceptable degree of damage upon any aggressor, at any time during the course of a strategic nuclear exchange – even after absorbing surprise first strike” (McNamara, Robert, 1967).

The assured second strike generally refers to nuclear submarines which are invulnerable to first strike, hence,

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can survive against a surprise attack. It is also because the detection of nuclear submarines is extremely difficult because of challenging sea conditions as well as their ability to stay submerged for longer periods. This is why these submarines are called absolute weapons (Cote Jr., Owen R, 2019). In an adversarial relationship between two nuclear weapon states, if both adversaries have assured second strike capability, deterrence will be stable. While, if one state acquires assured second strike capability, deterrence relationship will be fragile. This is the case between India and Pakistan. India is nuclearizing the IOR where, the burden of preserving deterrence rests with Pakistan – a country which currently has only a credible second strike capability.

This research attempts to understand the impact of nuclearization of IOR by India on strategic balance between India and Pakistan. The research question addressed in this paper is how nuclearization of IOR by India can have negative implications for South Asian strategic stability? The research methodology utilized in this article is qualitative. Both primary and secondary sources of data are employed in this research. Interviews were conducted for the collection of primary data. This paper is divided into three parts. The first part conceptualizes the IOR. The second part explains the Indian policies in IOR and nuclearization of the region by India. The third part explores options for Pakistan to ensure strategic stability in South Asia.

The IOR region, where India has been assertively increasing its presence and strategic influence, poses a significant challenge for Pakistan. This requires Pakistan to not only invest in modernizing and expanding its naval fleet, but also improve coordination among different agencies responsible for ensuring maritime security. In this article, the author examines the measures that can be taken by Pakistan to strengthen its naval capabilities and maintain a balance of power in the IOR. India will not revise its naval nuclear ambitions as it wants to opt for a blue water navy and revise the status quo. Consequently, Pakistan must work for a progressing economic outlook so that it can opt for assured second strike capability in the future. Pakistan's policy makers need to shortlist the alternatives and opt for those which can still remain reliant when Pakistan acquires the respective capability.

### **The Indian Ocean Region**

The IOR is a global common. However, India has started perceiving it as its backyard.(A. A. Khan, 2018) As India nuclearized South Asia, India is the first littoral state to nuclearize IOR. Such converging interests of India and US have made the IOR a theatre of cooperation among US allies to compete with China. This prevailing great power competition will have a major impact on India Pakistan relations as well as, Pakistan's threat perceptions. India is moving towards an assured second-strike capability where; it will also deploy ready to fire nuclear capable ballistic and cruise missiles on INS Arihant (operational) and INS Aright (under construction).(India Submarine Capabilities, 2022) This will raise the probability of conflict escalation between India and Pakistan.

The IOR is the third largest oceanic body which hosts vital choke points of global Sea Lines of Communications (SLOCs). The SLOCs in IOR aid Asia's biggest economies where at least 80 percent of the world oil transits. The US National Security Strategy 2022 underpins the perceived need to counter China through regional partners in the Asia

Pacific. (US National Security Strategy, 2022) One of the regional partners to accomplish this strategy is India (US National Security Strategy, 2022). Such US ambitions suit India as it wants to acquire a blue water navy. Because of increased dependence on trade via SLOCs, Pakistan is sensitive to IOR becoming a theatre for militarization. Great power competition is evident from US inclination towards IOR and the formulation of quadrilateral axis (US, India, Australia and Japan). Such competition hinders further possibilities of cooperation or shared security mechanism at regional level (Strategic Vision Institute, 2019).

### **India in the IOR**

During former Prime Minister Indra Gandhi's period in the Indian government, India opened up to the idea of exercising influence in the IOR. In essence, the acquisition and maintenance of Indian nuclear capability is crucial to India for power projection in and beyond South Asia. Presently, India desires for power projection in all of Asia Pacific including South China Sea.(Jemimah Joanne C. Villaruel, 2015) Such Indian interests, coupled with Prime Minister Modi's extremist ideologies, under RSS as a regional hegemon, are consequential and pose challenges to strategic stability between India and Pakistan.(Growing Threats of Hindutva Politics, 2022) This creates challenges for Pakistan's conventional and nuclear capabilities where, Indian designs also threaten Pakistan's maritime, economic, energy and military security.

Initially, India leased a nuclear-powered submarine through Russia which helped it to gain expertise and know-how regarding SSBNs. This experience paved way for India to develop indigenous submerged nuclear platforms. This has brought fruition to Indian plans to acquire an assured second strike capability. Such Indian capabilities will help India to exercise its influence beyond IOR. It is so because, India wants a blue water navy (India's Drive for a 'Blue Water' Navy, 2018) and aims to be a global power (Zeeshan, Mohamed, 2021). India's 2007 maritime strategy (Updated in 2015) states the following:

Our 'No First Use' policy amply illustrates India's intentions of using the nuclear deterrent only as a retaliatory measure of last resort. Sea-based leg of the nuclear triad enables a survivable second-strike capability and is, therefore, a critical enabler for the nuclear doctrine of 'No First Use' to attain credibility. The nuclear submarine option is the preferred arsenal for small nuclear forces. India's current maritime strategy document covertly mentions the influence of 1950's Cold War logic in the explanation of its acquisition of nuclear triad including SSBNs. As it stated, "Cold War experience has shown that reduction in the first-strike and increase in the second-strike (retaliatory) component considerably stabilizes and strengthens deterrence."

Currently, India holds numerical superiority vis-à-vis Pakistan Navy with 6:1 proportion. India has operationalised one Russian leased nuclear-powered general-purpose attack submarine (SSN) called INS Chakra. To become a blue water navy, India has Maritime Capability Perspective Plan to operate a Navy which will consist of at least 200 ships, sixty frigates, multiple aircrafts, 6 SSBNs, 6 SSNs, 20 diesel electric submarines and 3 aircraft carriers.(Official Website of Indian Navy, n.d.) Indian sea based deterrence will have an extensive range of nuclear capable cruise and ballistic missiles in their inventory which will affect strategic stability in the region.

The development of SSBNs by India began in 1984 under ATV Project. After three decades, in 2018, Indian first SSBN, the INS Arihant became operational. In December 2021, India also deployed Arigit which is a second SSBN of Arihant class. Presently, India is in the process of construction of two more SSBNs. The Arihant consists of 12 launch tubes that can hold nuclear capable K-15 SLBM (700 km range) or nuclear capable K-4 SLBMs (3,500 km range). In Dec 2022, India also claimed to have tested K-4 missiles from INS Arihant.(India Tests Submarine, Land Missiles, Arms Control Association, 2022) India is also developing K-5 MIRV missile (6,000-10,000 km range) with conventional and nuclear payload. Apart from Agni-V and Agni VI, K-5 will be the third missile equipped with MIRV capability. It can carry up to four missiles. Also, for multiband military communications, Indian Navy also utilizes an exclusively dedicated GSAT satellite.

To manifest its strategic position as a perceived net security provider, India is eyeing many strategic locations in the IOR under its Act East Policy. For instance, India is in the process of militarisation of the Andaman and Nicobar Islands.(Bose, 2023) These islands will maintain collaborative security including the Japan-United States Sound Surveillance Systems with the aim to track Chinese submarines.(Bose, 2023) India is currently developing its initial naval bases in Seychelles, and Mauritius' islands of Agalega (Agalega, 2022) which will complete soon.(Dennis Hardy, Will India Try Again for a Military Base in Seychelles?, 2022) In 2018, India gained access to Duqm port in the Gulf of Oman as well.(India Gains Access to Oman's Duqm Port, Putting the Indian Ocean Geopolitical Contest in the Spotlight, The Diplomat, 2018) These future bases will help India in easy monitoring of SLOCs as well as support any Naval operations in the Southwestern IOR. India has also established Coastal Surveillance Radar stations in Seychelles, Maldives, and Sri Lanka to gather intelligence.(<http://m3web.bg>, n.d.) India is also increasing its presence in the South China Sea (SCS) via joint naval exercises and increasing defence cooperation with states like Malaysia, Philippines, Vietnam and Singapore.(Saha, 2021) It is to help the US interests in the SCS vis-à-vis China. China is eyeing these developments with a keen interest as India is a popular counterweight to China.

#### **Extra Regional Forces in the IOR**

Besides India, various major powers have maintained and are expanding their naval presence in the IOR. The presence of American, Russian, Chinese, French and British naval forces in the IOR and the changing nature of their relations with India poses greater challenges for Pakistan's maritime security as well as, the survivability of its sea-based nuclear forces.

France holds autonomy over many islands in the IOR which have a strategic significance. They include Le Reunion and Mayotte islands. There is a logistics base at Djibouti for the French navy which is stationed by France through its Mediterranean and the Atlantic commands. Owing to the islands, France considers herself to be a 'regional' power in the IOR, rather than an extra-regional one. France has several defense pacts at place with Djibouti, Comoros, Saudi Arabia, UAE, Qatar, Madagascar, and Mauritius. These agreements portray an evident involvement and unique force posture of France in the IOR

The U.S. Navy has a perpetual presence in the IOR as its fifteen to thirty warships are constantly patrolling in this region. The U.S. Fifth Fleet is also present in Bahrain. Besides, the Sixth Fleet of the US CENTCOM and the Seventh Fleet of the US INDOPACOM are readily available to augment forces in the IOR. The U.S. naval presence in the IOR and its close cooperation with the India Navy in the region is central to its rebalance strategy.

China has a military base in Djibouti. This base is mainly seen as an African development rather than a significant development in the IOR.(Baruah, 2022) It is so because, this base will focus on Chinese interests in Africa, Middle East, and the Red Sea.(China's Djibouti Naval Base Increasing Its Power, East Asia Forum, 2020) China has also taken Sri Lankan Hambantota port on lease for non-military commercial use. There are speculations that China will use Pakistan's Gwadar port to access the IOR. However, there is no evidence of such a possibility regarding Pakistan providing a naval port to China.(Iwanek, 2019)

#### **Indian Logistics Support Agreements**

Logistic support agreements (LSAs) are a form of mutual reciprocal arrangements which allow a wide range of activities to be carried out between two or more states for logistic support and use of each other's ports, aircrafts, warships etc. These LSAs are cost effective ways to guard security interests as they allow states to project and sustain their powers beyond their borders without transporting their physical logistics with them. These agreements also help convey the message to adversaries regarding power projection as a joint front by states with common adversaries. Through the use of Maritime Domain Awareness (MDA) for security purposes, these agreements also increase tracking, surveillance and reconnaissance regarding vessels and submarines of an adversary. India has signed military LSAs with France, Russia, US, Australia, South Korea, Singapore, Vietnam, and UK (Saxina, 2020). The details of these agreements are given below.

**Table 1**  
LEAs

S No	LEAs*	Details
1.	The Logistics Exchange Memorandum of Agreement (LEMOA) between U.S. and India (Signed in 2016)	<ul style="list-style-type: none"> <li>- It is part of two separate agreements: Communication Interoperability and Security Memorandum of Agreement (COMCASA) and Basic Exchange and Cooperation Agreement (BECA)</li> <li>- Permits both states to use each other's bases, ports and facilities and conduct joint exercises among other issues.</li> <li>- An open-ended agreement which can include any support agreed by signing parties.</li> </ul>
2.	Indo-French agreement on Reciprocal Logistics Support for Armed Forces (Signed in 2018)	<ul style="list-style-type: none"> <li>- Permits both states to use each other's bases.</li> <li>- Promote Stability in the IOR and conduct joint exercises.</li> <li>- Share maritime intelligence via space agencies.</li> </ul>
3.	MLA between India and South Korea (Signed in 2019)	<ul style="list-style-type: none"> <li>- Logistics support during Indian presence in Asia Pacific</li> </ul>
4.	Mutual Logistic Support Agreement (MLSA) between Australia and India (Signed in 2020)	<ul style="list-style-type: none"> <li>- Improve military inter-operability</li> <li>- Conduct joint exercises</li> <li>- pursue strategic interests in the IOR through shared vision</li> </ul>
5.	MLSA with South Korea (Signed in 2020)	<ul style="list-style-type: none"> <li>- Increase defence cooperation</li> </ul>
6.	Acquisition and Cross-Servicing Agreement (ACSA) between India and Japan (Signed in 2020)	<ul style="list-style-type: none"> <li>- Focus on maritime security and joint exercise</li> </ul>
7.	Reciprocal Exchange of Logistics (RELOS) between India and Russia (In Process)	<ul style="list-style-type: none"> <li>- Indian access to Arctic regions</li> </ul>

\*This table has been compiled by the author through adding all the LEAs at one place available in open source.

### Implications of Indian Ambitions in IOR

India states that it adheres to credible minimum deterrence. Nevertheless, the Indian development of naval nuclear capabilities which can carry over 100 nuclear missiles – which will be canisterized, as well as, mated in a ready-to-launch form – is inconsistent with Indian claims of minimalism. Moreover, with the acquisition of Multiple Independent Reentry Vehicle Systems (MIRVs) on submerged naval nuclear platforms, this number is likely to increase drastically. This will put pressure on Pakistan, in turn, with a possible initiation of an arms race in South Asia.

It is pertinent to note here that the three military services of India have contradicting views about their role as net security providers and there is no political effort to decrease this mismanagement (Dasgupta, 2010). Even after calls for reforms in defense with regards to structure, intelligence, planning, production and procurement in India, the situation is bleak due to uncoordinated national security establishment. This situation poses a serious challenge for India to define the role of military in retaining the assured second-strike capability. It is so because, although assured second strike is sea-based, the role of air force and army is also integrated for interoperability during crisis, war or peacetime operations. This aforementioned Indian disintegration between forces can result in misadventures and miscalculations in a crisis between India and Pakistan.

Furthermore, it shall be a challenge for India not only to retain a force structure in each leg of the triad, but also transfer the load swiftly from one leg to another if the need arises in a situation of a conflict. This highlights the credibility and effectiveness of Indian assured second-strike capability that it has achieved. Indian nuclear powered submarine INS Arihant already has witnessed some accidents which led to criticism from Indian scholars

themselves.(Panda, 2018) As it is evident from Brahmos missile incident, this can result in inadvertent use of nuclear weapons in South Asia. Hence, Indian acquisition and modernization of all three legs of the nuclear triad demonstrates India moving towards First Use and abandoning its No First Use doctrine.

In a crisis situation, Pakistan Navy's movements to track Indian nuclear submarines can be perceived as offensive by the commanding officers aboard these submarines. It is pertinent to note here that India will have to give some delegation of command and control of nuclear weapons at sea to ensure survivability.(Sial & Ghaffar, 2021) This can trigger a response in the form of 'use-it or lose-it dilemma,' paving way for further increase in tensions between the two states. Moreover, Chinese increased presence in the IOR can trigger an increase in Indian assertive behavior vis-à-vis Pakistan. Such behaviour by Indian navy will trigger crisis with a possibility of crisis escalation.

India is increasing the number of naval platforms without building more dockyard facilities.(Raksha Avira, 2022) The current Indian dockyards have witnessed many accidents and collisions of submarines and naval vessels.(Frequent Incidents of Mishap in Indian Navy, 2014) This raises concerns regarding safety aspects of Indian nuclear missiles as the fallout of such accidents will have environmental and radiological affects in the broader IOR.(Bogatov et al., 2009)

Indian LSAs with other states will have a strong potential to antagonize China. India baiting itself as the US proxy will increase strategic pressure on China and affect Chinese regional economic integration through its Belt and Road Initiative. This can result in direct conflicts between China and India coupled with structural confrontations. As there can be a presence of militaries of other states in India through LSAs, the situation could drastically change in future wars. It will complicate use of force or physical attack on an adversary in the presence of militaries of ERF. Hence,

any future conflict will have serious repercussions as there will be a possibility of escalation of such conflict where the conflict will not remain within South Asia or IOR.

Recently, UK has shown support for Indian inclusion in AUKUS – a security pact between Australia, UK and US to counter China. India already has LSAs with Australia and the US, hence, there is a greater possibility of involving India into AUKUS. By joining AUKUS, India will have access to technology regarding Artificial Intelligence (AI), quantum, and undersea technologies. India also desires for acquisition of more SSNs. Under AUKUS, India will be able to propose this project to the US defence industry. As the US submarine technology is more efficient than Russia, such receipt of technology by India can increase strategic instability thereby, bringing the region closer to crises escalation in future conflicts. Such Indian acquisition of naval assets will enhance Indian vertical proliferation, thus, will create more challenges for already fragile nuclear non-proliferation regime.

Many scholars and officials have termed the Quadrilateral security dialogue as future NATO. As a part of Quadrilateral security dialogue, India will be able to benefit with close assistance with navies. India also acquired P8I aircraft coupled with attack helicopter in order to carry out anti-submarine warfare operations, maritime, ISR capabilities, and coastal defence apart from other operations. This can influence India – a state with hegemonic designs – to go for escalation dominance vis-à-vis Pakistan. During any conflict between India and Pakistan, as a future Asian NATO, the QUAD members can provide India the capabilities to compel Pakistan by practicing escalation dominance. Similarly, INFRUS, a security arrangement proposed between India, France and the United States in the IOR is also a point of concern for Pakistan.

Under the Indo-US defense agreements, India will have access to the geospatial information bank of the U.S. National Geospatial-Intelligence Agency. Through this access, India can easily track Pakistan Navy's maneuvers at sea, while receiving constant updates in the IOR. India can also utilize such information gathering for surveillance of Pakistan's sensitive military infrastructure even during peacetime. Such collection of sensitive data will help India to practice escalation dominance and opt for offensive naval operations including amphibious warfare vis-à-vis Pakistan during a conflict. Such advanced data will also result in increased accuracy of Indian missile systems by installation of precise target locations. US and Indian Interoperability between their respective forces with regards to anti-submarine warfare will also strain Pakistan's operational sea-based deterrence.

Increased Chinese naval presence in IOR could divert Indian and US naval attention away from Pakistan. However, increasing competition between the U.S. and China could lead American Navy to view growing Sino-Pak naval cooperation as a threat and pose greater danger to Pakistani ports, shipping, and naval platforms.

Indian SSBNs will provide India with a survivable retaliatory capability. However, Indian deployment of INS Arihant during 2019 crisis also creates further doubts regarding these capabilities to be used only for retaliatory strikes. Such advantages coupled with Indian Ballistic Missile Defense (BMD) systems will provide India with false sense of security. This can result in India going for pre-emption as such advancement will enable India with

counterforce targeting especially through sea-based platforms.(Shakhija, 2001) Such advanced capabilities and technological acquisition by India can seriously undermine balance of power in the region as India will have strategic advantage over Pakistan during crisis situations. This will result in coercive Indian behaviour vis-à-vis Pakistan as stated above.(Strategic Vision Institute, 2022)

Given how India is termed as a net security provider in the region by states perceiving China as a threat, it is possible that Paris and Washington might give India SSBNs as well. The name of this kind of military cooperation is proposed as INFRUS. The development of India's nuclear triad, with the U.S. providing significant help, would have serious consequences for the region's crisis stability and deterrence. As the repercussions of a nuclearized IOR is extending outside of the region, the transfer of advanced SSBN's technology through hypothetical INFRUS concept will increase the military prowess of India, which is cause for concern not just for the IOR's littoral countries but additionally for the rest of the world.

Because of nuclear and military exceptionalism, coupled with naval nuclear and military modernization, there is a possibility that India will exercise influence and nuclear blackmail vis-à-vis Pakistan. This shows that India will leverage its defence partnership with the US to increase its bargaining ability to isolate Pakistan in international nuclear order. India can also use non-violent compulsion against Pakistan through naval blockade, economic sanctions, social media campaign and political isolation.(Perkovich, George, Dalton Toby, 2017) This gives India an opportunity to proceed with any misadventure against Pakistan without needing a rationale for such action. In such a hostile environment, a small skirmish could transform into a major military conflict with a possibility of escalation to total war.

### Options for Pakistan

Pakistan Navy currently operates 8 submarines which include 5 diesel electric subs and three mini submarines. Pakistan will also acquire 8 air-independent propulsion submarines (SSP), 50 ships, four Type 054A/P frigates three Long-Range Maritime Patrol Aircraft (LRMPA), Unmanned Aerial Vehicles (UAV) and one Type 039A submarine.(Team, 2020) Under the Hangor submarine programme, Pakistan aims to move from "submarine-operating navy into a submarine-building navy."(Team, 2020) To enhance and secure submarine based military communications, Pakistan has already inducted a Very Low Frequency (VLF) communication facility.(New Naval Base PNS Hameed Commissioned, 2016) Through Babur III SLCM, Pakistan has a credible second strike capability. Thus, missile is also counter to an environment where, India is acquiring Ballistic Missile Defenses.

The deterrence would come under greater stress once India develops a full-fledged and assured second-strike capability and Pakistan does not. Theoretically at least, the side without an assured second strike can be in a complicated situation. Given the situation, Pakistan will have to stabilize strategic deterrence through the development of a modest triad, which should have sufficient qualitative nuclear inventory, enhanced hardened infrastructure and use of decoys, and robust C4I2SR capabilities.

The best defense against a sea-based nuclear deterrent is having a matching capability, which is economically and politically expensive to come by and deserves a protracted investment. As an interim measure, Pakistan can develop a modest sea-based capability by integrating and deploying Babur cruise missiles on its conventional submarines. The Air-Independent Propulsion (AIP) systems of these vessels would allow these to remain submerged and undetected for longer durations. It is significant to note here that in the 1965 war Pakistan had an advantage of one submarine (Ghazi) and the threat of submarine patrolling the IOR near Indian coastlines made India so vulnerable, that it did not leave the harbor during this war. It is worthwhile to mention that Israel is one country believed to have installed nuclear weapons on-board its German Dolphin class submarines. (Sutton, 2022) Moreover, it is worth recalling that during the Afghan war of 80s, Pakistan navy was able to reconfigure to fire US origin Harpoon anti-ship missile from its French Agosta submarines originally equipped to fire Exocet missiles.

Other complementary and essential measures would be: 1) Enhancing space-based remote sensing, extremely low frequency communications, I2SR, electronic intelligence capabilities and expand cooperation with China in these areas; 2) Improving maritime reconnaissance and anti-submarine warfare capabilities while integrating emerging technologies and AI to solidify Pakistan's defenses. For instance, Pakistan can develop swarms of unmanned vehicles both above and below the water controlled by AI. 3) Maintain ambiguity in its nuclear doctrine; 5) Continuously upgrade deception measures of the three strategic force commands; 7) Develop additional naval ports along Pakistani coastline to ensure dispersal and improved survivability of submarine fleet; 8) Make port calls on Sri Lanka for nuclear signaling, as this may reduce the vulnerability of our submarine bases; 9) Likewise, improve relations with IOR Littoral States to ensure their security relations with India are not at the cost of Pakistan's maritime and national security interests; 10) Propose new nuclear confidence building measures to India, which can include maintaining hotline between the Chiefs of Naval Staff of both states.

The rise in Indian global role, influence and sea-based strategic capabilities is a consequence of long-term planning, sustainable investment in high quality education, capital intensive R&D, large industrial infrastructure, economic growth and relevance with multiple existing and emerging power centers. In order for Pakistan to eventually develop its indigenous ballistic missile nuclear fleet, which offers an assured second-strike capability would require a similar approach. Nevertheless, unlike India, Pakistan's tri services are systematically coordinated, hence, it will be possible to acquire such a capability and maintain it.

In this emerging East-West competition in IOR and Asia-Pacific, Pakistan should avoid and/or resist the temptation of becoming a satellite to any big power in providing port facilities to navies. The lesson of providing Badaber Air Force Base to the U.S. during the peak of Cold War rivalry with Former Soviet Union would substantiate the futility of becoming a tugboat to major powers.

It is important to deter Indian hegemonic regional and global designs in the IOR. IOR was termed 'Indian' in geographical sense only. Hence, like many Pakistanis have proposed, it should be called as AAO similar to the identity

of Asia-Pacific region which has been restyled in the recent years.

Present environment is not conducive to arms control between India and Pakistan. Hence, the security scenario will not change where, India will continue its naval nuclear modernization coupled with Indian acquisition of BMD systems. As India will not revise its naval nuclear ambitions, Pakistan must work for a progressing economic outlook so that it can opt for Assured Second Strike capability in the future. Pakistan needs to shortlist the alternatives and opt for those which can still relate reliant when Pakistan acquires assured second strike capability.

## 2. CONCLUSION

Indian naval nuclear ambitions will jeopardize crisis stability accompanied by arms race instability in the IOR. Nuclearization of IOR by India brings forth a serious set of strategic and operational challenges for South Asian strategic stability. This Indian naval nuclear and military exceptionalism will assist India to use coercive strategies and nuclear blackmail vis-à-vis Pakistan. This will negatively impact strategic stability between India and Pakistan. Pakistan will have to consequently acquire assured second strike capability as well as, invest in anti-submarine warfare. If the security calculus in the IOR does not change, states will find themselves in serious military conflicts which will not remain limited to IOR, hence, affecting global peace and stability.

To ensure its national security interests and effectively counter India's expanding sea-based strategic capabilities, Pakistan must adopt for a comprehensive long-term approach. This involves investing in advanced technology for defence purposes and enhancing maritime surveillance as well as, anti-submarine warfare capabilities. Additionally, the country should focus on developing more naval ports while, simultaneously working towards improving diplomatic relations with neighbouring states.

To further strengthen its military prowess, it is imperative that Pakistan maintains nuclear ambiguity while striving towards the development of an indigenous ballistic missile nuclear submarine fleet. It is also essential for the nation to avoid becoming dependent on any major power by cultivating sustainable partnerships that prioritize its own interests above the current geostrategic landscape. By following this path, Pakistan can expand its clout, preserve regional stability and maintain strong national defences.

### Competing Interests

The author did not declare any competing interest.

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