

India's Development of Sea-based Nuclear Capabilities: Implications for Pakistan

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Abstract

India is rapidly building up its navy in order to develop blue-water capabilities and increase its prowess in the Indian Ocean and beyond, which is integral to India's grand strategy to attain a regional and global power status. This poses a threat to the regional states. It, especially, heightens Pakistan's threat perception, whose main security threat comes from India. Of all the gravest concerns for Pakistan is India's development of nuclear triad, which is mainly comprised of its nuclear powered submarine fleet, armed with a range of nuclear-tipped missiles, which gives it a second-strike capability. The paper looks at how India's development of sea-based nuclear capability would affect nuclear deterrence stability in South Asia. The paper assesses the Indian naval nuclear development and also whether a second strike capability can potentially stabilises deterrence in South Asia. It finds that the development of a nuclear triad, in general, and second strike capability, in particular, would not stabilise deterrence or bring strategic stability to South Asia. In fact, it would increase arms race tendencies. It would eventually brings instability and further uncertainty to the region with complex command and control issues involved, and the risk of accidental or unauthorised launch.

Keywords: Nuclear Triad, Second Strike Capability, Nuclear Submarines, Command and Control, Unauthorised Launch, Arms Race.

Introduction

The Indian Navy (IN) is the fifth largest in the world. In the recent years, India has undertaken a rapid modernisation of its navy in a drive to develop blue-water capabilities and increase its prowess in the Indian Ocean and beyond. This is also part of India's grand strategy to attain regional and global power status. However, India's drive to a rapid build up of its navy is

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seen as a threat by many states in the region. It has especially heightened the threat perceptions of Pakistan, whose main security threat comes from India. However, of all the greatest concerns is that India is developing the naval leg of its nuclear triad, which would give it a second strike capability. Development of a nuclear triad means that in addition to the land and air-based nuclear capability, India is also developing a sea-based capability. It is not only developing nuclear-armed ballistic missiles that can be launched from warships or nuclear submarines, but also nuclear-tipped cruise missile, Brahmos. This, combined with submarines that can carry and launch these missiles, poses a threat to Pakistan. This would have a huge impact on the nuclear deterrence equation between India and Pakistan. In view of this, it is imperative to study India's evolving naval nuclear capabilities in order to assess the kind of threat it poses for Pakistan.

The main question is how India's development of sea-based nuclear capability would affect nuclear deterrence in South Asia? The secondary questions that the paper addresses are: What is the trajectory of the Indian nuclear naval capability? Would a second strike capability stabilises deterrence between India and Pakistan? How does it affect strategic stability in the region? What are the policy options available to Pakistan in order to counter the instability, introduced by the growing naval capabilities of India?

The idea that a nuclear submarine provides an assured second-strike capability dates back to the Cold War. Both the US and the former Soviet Union developed nuclear powered submarines in the 1950s, which meant that they could stay submerged for months without being detected. The idea was that even if the adversary could destroy all land nuclear forces in first strike, the submarine-based nuclear assets would survive and could be used to launch a counter attack. It was thought to endorse the mutually assured destruction that yielded stabilising effects to the US-Soviet deterrence.¹ The idea that the nuclear powered submarines carrying ballistic missiles, which are generally termed as SSBNs, providing an assured second-strike, has endured and forms one of the basic principles of nuclear strategy.

However, the paper examines this notion that the sea-based nuclear capabilities stabilises deterrence. It also examines whether this logic that

¹ Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: Palgrave Macmillan, Third Edition, 2003).

prevailed during the Cold War, applies to the South Asian theatre. The South Asian nuclear environment is vastly different from the US-Soviet relations during the Cold War or the US-Russia deterrence relations at present, especially with regards to geographical proximity, political realities, economic resources and bureaucratic apparatus. The paper also aims to examine whether the Indian naval nuclear capabilities would bring strategic stability or just serve to further fuel arms races, exacerbate tensions and bring instability to the region.

The main argument is that the development of a nuclear triad, in general, and second-strike capability, in particular, would not stabilise deterrence or bring strategic stability to South Asia. On the contrary, it would increase arms racing tendencies and bring instability and further uncertainty to the region with complex command and control issues involved.

India's Pursuit of a Nuclear Triad

Doctrinal Underpinnings

What are the doctrinal underpinnings to this pursuit of a nuclear triad by India? In the wake of its 1998 nuclear tests, India issued a draft nuclear doctrine, which envisaged future minimum nuclear deterrent based on “a triad of aircraft, mobile land-based missiles and sea-based assets.”² The importance attached to sea-based deterrence in India's nuclear posture has been emphasised in subsequent documents as well including the IN's maritime strategy and successive iterations of its maritime doctrine in 2004, 2009 and 2015.³ The Indian maritime document of 2009, states that “by virtue of its stealth and attendant survivability of second-strike capability, a

² “Draft Report of National Security Advisory Board on Indian Nuclear Doctrine,” August 17, 1999, <http://mea.gov.in/in-focus-article.htm?18916/Draft+Report+of+National+Security+Advisory+Board+on+India+n+Nuclear+Doctrine>

³ Indian Navy, *Indian Maritime Doctrine*, 2009, <https://www.indiannavy.nic.in/sites/default/files/Indian-Maritime-Doctrine-2009-Updated-12Feb16.pdf> and “Ensuring Secure Seas: Indian Maritime Security Strategy,” Indian Navy, 2015, <https://www.indiannavy.nic.in/content/indian-maritime-doctrine-2015-version>

nuclear submarine is particularly suited for nuclear deterrence.”⁴ The same rationale is advanced by the former Chief of Naval Staff, Arun Prakash, who uses the logic that the latest technology like satellites makes it hard to conceal or secure land-based nuclear assets, so “[t]he best way for India to provide invulnerability to its deterrent is to remove it from the enemy’s scrutiny and send it underwater, on an SSBN. Once the submarine dives into the deep waters of the open ocean it becomes virtually impossible to locate or attack.”⁵ Therefore, the Indian doctrinal iterations have given the greatest importance to SSBNs as a part of a credible nuclear deterrence against its nuclear rivals, Pakistan and China.⁶

Sea-based nuclear deterrence is one of the important tenets of India’s 2015 Maritime Security Strategy document, as well. The document highlights the importance of maintaining “a credible minimum deterrent, with assurance of massive nuclear retaliation, which is designed to inflict unacceptable damage, in response to a nuclear strike against India.”⁷ This depends on dispersal high survivability against surprise attacks. Hence, India pursued the development of a sea-based segment of the nuclear triad, primarily, SSBN. The document states that an “SSBN, due to the stealth characteristics enabling discrete and prolonged deployment, and combat capabilities including weapon outfit, provides a credible, effective and survivable capability and contributes to assurance of punitive retaliation in accordance with our nuclear doctrine. The SSBN deployments also counter an adversary’s strategy of seeking advantage from nuclear posturing or escalation.”⁸

India’s rationale for developing a nuclear triad has been attributed to the desire for prestige to bureaucratic rationales. The prestige that having a

⁴ Indian Navy, *Indian Maritime Doctrine*, 2009, 27, <https://www.indiannavy.nic.in/sites/default/files/Indian-Maritime-Doctrine-2009-Updated-12Feb16.pdf>

⁵ Arun Prakash, “India’s Nuclear Deterrent: The More Things Change,” Policy Report (Singapore: S. Rajaratnam School of International Studies, 2014), 6.

⁶ Balaji Chandramohan, “India’s Evolving Maritime Security Strategy and Force Posture,” *Strategic Analysis Paper*, March 3, 2016, <http://www.futuredirections.org.au/publication/indias-evolving-maritime-security-strategy-and-force-posture/>

⁷ “Ensuring Secure Seas,” Indian Navy, January 25, 2016, 48, https://www.indiannavy.nic.in/sites/default/files/Indian_Maritime_Security_Strategy_Document_25Jan16.pdf

⁸ Ibid.

naval nuclear capability brings is apparent. At the launch of *Arihant* in July 2009, the Indian Prime Minister, Manmohan Singh, said “today we join a selected group of the five nations [the five permanent members of the United Nations Security Council, (UNSC)] who possess the capability to build a nuclear powered submarine,” he added that it was a “special achievement.”⁹ There may be bureaucratic rationale as well. In its first published maritime doctrine of 2004, the IN talked about its marginalisation from strategic programme, saying India stands out alone as being devoid of a nuclear triad. The acquisition of the naval nuclear capability certainly brings prestige to India and also brings the IN into the folds of the strategic nuclear programme. However, the strongest logic behind the Indian pursuit of naval nuclear capability may be the Cold War notions that it is needed to provide a second-strike capability. The Indian Maritime Security Strategy 2015 also alludes to it, “the Cold War experience has shown that reduction in the first-strike and increase in the second-strike component stabilises and strengthens deterrence.”¹⁰ Overall, a clear rationale can be deciphered in the Indian doctrine that relies on a naval capability, especially submarine-based nuclear capability to provide a second-strike capability.

India’s Growing Naval Capabilities

India has been building up a blue-water navy to extend its maritime reach and to match its ambitions of a great global power. The development of its naval capabilities in general and nuclear capability in particular is an important part of realising the dream of a regional and global power. As of 2016, the IN has a strength of 79,023 personnel and a large fleet consisting of two aircraft carriers; one amphibious transport dock; nine landing ship tanks; 14 frigates; 10 destroyers; one nuclear powered submarine and 14 conventionally powered submarines; 25 corvettes; 7 minesweeping vessels; 47 patrol vessels; four fleet tankers and various auxiliary vessels.¹¹

India is constantly improving and adding to its naval capabilities. It further plans to spend at least US\$61 billion on expanding the navy’s

⁹ “India Launches Indigenous N-powered Submarine,” *Daily Star*, July 26, 2009.

¹⁰ “Ensuring Secure Seas.”

¹¹ Andrey Karlovich, Brian Kalman and Edwin Watson, “Military Analysis: Indian Navy,” *South Front* March 14, 2016, <https://southfront.org/military-analysis-indian-navy/>

size by about half in the next decade or so.¹² In order to realise that goal, it has not only tried to boost its indigenous naval vessels building-capacity in recent years but also done a fair amount of acquisitions from abroad. India has ambitions to build a 160 plus-ship navy, comprising three aircraft carrier battle groups by 2022.¹³ India is building and acquiring around 40 warships and submarines. These acquisitions/ developments include stealth destroyers, anti-submarine corvettes and stealth frigates.¹⁴

India already possesses two aircraft carriers — the Russian origin Indian Naval Ship (INS) *Vikramaditya*, in service since 2013, and INS *Viraat*. India is also constructing INS *Vikrant*, which is due to be inducted by 2018-19, and has plans for the development of the larger INS *Vishal*. The IN is also inducting MiG-29K multirole aircraft and *Kamov-28* and 31 helicopters to deploy from its aircraft carriers.¹⁵ India has also purchased eight maritime reconnaissance and anti-submarine aircraft from Boeing Co. for US\$2.1 billion in 2009, and approved an order for four more aircraft.¹⁶ These acquisitions would immensely improve the Indian reconnaissance capabilities and would provide the IN a strategic outreach in the Indian Ocean.

India is also improving its amphibious warfare capabilities. It is inducting four Landing Platform Docs (LPD) to join the amphibious warfare fleet, alongside INS *Jalashwa*. These LPDs would be 200 meters long and be able to transport battle tanks, heavy trucks, Armoured Personnel Vehicles (APV) and other heavy machinery. These would also have a point-missile defence system and a close-in system for defence.¹⁷ This, again, improves India's naval war-fighting capabilities.

¹² David Tweed and N.C. Bipindra, "Submarine Killers: India's \$61 Billion Warning to China," *Bloomberg*, July 28, 2015.

¹³ Interview of Chietigj Bajpae by Srinivas Mazumdaru, "Naval Build-up Reflects India's Ambition to Project Power," *Deutsche Welle*, <http://www.dw.com/en/naval-buildup-reflects-indias-ambition-to-project-power/a-18275292>

¹⁴ *Ibid.*

¹⁵ *Ibid.*

¹⁶ Masood-ur-Rehman Khattak, "Indian Military's Modernisation: A Threat To Strategic Stability of South Asia," *Eurasia Review*, March 26, 2011, <http://www.eurasiareview.com/26032011-indian-militarys-modernisation-a-threat-to-strategic-stability-of-south-asia-analysis/>

¹⁷ *Ibid.*

India's Development of Sea-based Nuclear Capabilities

India is working to build-up its submarine fleet. This includes the construction of Scorpions with the help of France, the leasing of some submarines from Russia and upgrading of India's Russian and German-made submarines. The Scorpion submarines will be constructed with the help of France's state-owned company, *Direction des Constructions Navales (DCNS)* for estimated US\$4.6 billion.¹⁸ These submarines can stay submerged for a week making it difficult to track them. This emphasis on submarines would give India a profound strategic reach in the Indian Ocean and help improve its war capabilities. The IN also possesses the *Akula*-class nuclear-powered submarine INS *Chakra* (SSN), which can remain underwater for months — unlike conventional submarines that have to surface often. The submarine is armed with 36 torpedoes and *Klub* anti-ship missiles. These submarines can also be modified to carry nuclear-tipped ballistic missiles.

The most important component of India's second-strike capability is IN's development of *Arihant*-class nuclear SSBN. India is reportedly planning to develop a fleet of six *Arihant*-class SSBNs. Six nuclear attack submarines (SSN) are also planned while India has been negotiating with Russia to lease a second *Akula*-class attack submarine.

India is rapidly moving towards developing its nuclear and missile capabilities and moving towards deploying its under-sea deterrent. The development of *Arihant*-class nuclear-powered submarines has also completed India's nuclear triad. These submarines are capable of carrying nuclear-armed ballistic missiles. The INS *Arihant* has already completed its critical diving tests and undergone the test launch of unarmed ballistic missiles. The hulls of another two SSBNs, including the INS *Aridhaman*, have already been completed and these vessels are expected to be launched soon.¹⁹

India is also developing nuclear-armed ballistic missiles that can be launched from warships or nuclear submarines. It conducted the test of K-4 Submarine-Launched Ballistic Missile (SLBM) on March 31, 2016, from

¹⁸ Ibid.

¹⁹ Ali Sarwar Naqvi, "A Nuclearised Indian Ocean," *News*, May 20, 2016, <https://www.thenews.com.pk/print/121303-A-nuclearised-Indian-Ocean>

the INS *Arihant*. Reportedly, the test was conducted with full operational configuration. The missile is capable of carrying nuclear and conventional warheads with a 3,500 km and allows India the ability to field an under-sea nuclear deterrent and would form the core of India's second-strike capability.²⁰ India's Defence Research and Development Organisation (DRDO) is also working on K-5, which will be an Intercontinental Ballistic Missile (IBM) with 6000 km range. India is also developing K-15 or *Sagarika* Intermediate-Range SLBM with a range of 700-1500 km to be integrated with the *Arihant*-class submarine. India has also tested and inducted the nuclear-capable short-range ballistic missile, *Dhanush*. It is a naval variant of *Prithvi* III with 500 kg payload and a 350 km range. The Indo-Russian joint production has also helped the former acquire the *Talwar*-class frigates. These frigates are armed with eight *Brahmos* missiles, capable of carrying nuclear warheads. *Brahmos* missile can be launched from submarines, surface ships, land and air.²¹ The development of full-range of nuclear capable missiles for its naval platforms will complete its nuclear triad, thus, enabling India to have second-strike nuclear capability. This development threatens India's neighbours, especially Pakistan.

Implications for Pakistan

India's motivation is to build a blue-water navy and a formidable force in the Indian Ocean and beyond is motivated by India's dream to emerge as a global power. This naval build-up is also a result of a closer strategic alignment with the US and its allies to counter China's rising power. The build-up is especially aimed at deterring China from establishing a foothold in the Indian Ocean. Having a formidable naval capability also means that India can be a regional hegemon in the Indian Ocean, as well as the Arabian Sea and the Bay of Bengal. This is a threat to all the littoral states of the Indian Ocean since India can deny access to the ocean's resources, communication and free movement at will.

However, the greatest worry is that India is all set to nuclearise the Indian Ocean. This is a threat to all the littoral states but especially for Pakistan. For Pakistan, which aims to maintain an effective nuclear deterrent against India, the introduction of its nuclear triad is a

²⁰ Zafar Ali, "Nuclearisation of the Indian Ocean Region," *Express Tribune*, May 28, 2016.

²¹ Naqvi, "A Nuclearised Indian Ocean."

threatening development, which further exacerbates its security dilemma vis-à-vis India. The Indian naval nuclear developments will qualitatively alter the strategic balance between India and Pakistan. It would force Pakistan to also introduce a naval-nuclear capability of its own to rebalance the deterrence equation between the two countries. This would only start a pointless arms race in the Indian Ocean as well.

The thesis that a second-strike capability helps achieve strategic stability, may not work in the India-Pakistan context. In South Asian context, nuclear arms race has more to do with sub-conventional and conventional attacks, escalating into a nuclear exchange, rather than a nuclear first-strike. Given these dynamics, an Indian SSBN cannot contribute to deterrence against Pakistan in any meaningful way.²² India professes threat from non-state actors while Pakistan relies on nuclear weapons as a hedge against India's growing conventional superiority and threat of early first use of nuclear weapons against the Indian Cold Start like incursions. Acquiring a sea-based nuclear capability does not mitigate either country's problems. It, thus, cannot be expected to stabilise deterrence.

On the contrary, the Indian naval nuclear capability may encourage arms race tendencies. The Indian triad creates pressure on Pakistan to acquire its own sea-based nuclear capability, as well as conventional naval capabilities.²³ One expert argues that, "if first-use incentives cease to exist, states should be less inclined to arms race, as strategic stability has been achieved and therefore, there is no theoretical military utility to be gained by introducing additional nuclear weapons or systems."²⁴ As long as India continues to pursue the Cold Start like doctrines or find gaps for limited war, first use incentives will remain valid for Pakistan. Also in the Cold War context, the development of a large SSBN fleet did not generate security for either side. Both super powers kept pursuing new land and air-based delivery systems, advanced missiles and improved warhead designs despite having achieved an assured second-strike capability.²⁵ It seems likely that

²² Diana Wueger, "Deterring War or Courting Disaster: an Analysis of Nuclear Weapons in the Indian Ocean," Thesis published by the Naval Postgraduate School, 66, March 2015, <http://hdl.handle.net/10945/4527>

²³ Iskander Rehman, *Murky Waters: Naval Nuclear Dynamics in the Indian Ocean* (Washington, DC: Carnegie Endowment for International Peace, 2015).

²⁴ Diana Wueger, "India's Nuclear Armed Submarines: Deterrence or Danger?," *Washington Quarterly* 39, no. 3 (Fall 2016): 81.

²⁵ *Ibid.*

even if both India and Pakistan achieve assured second-strike capability, they would continue to pursue conventional build-ups and development of more nuclear delivery systems and nuclear warhead advancements.

There are a number of issues involved in fielding an underwater deterrent that would raise the dangers of escalation, misperception and inadvertent use, thereby, increasing instability in the region. There are serious command and control issues that threaten to destabilise deterrence. As one Indian expert, Vipin Narang, pointed out that with an operational SSBN force, the civilian control over the Indian nuclear forces would be compromised. India's nuclear arsenal is kept under civilian control in peacetime and even in relatively intense crises, which minimises the risk of unintentional use.²⁶ Diana Wueger calls it the "always/never dilemma." This essentially means that while the weapons need to be always ready to use but at the same time there is the challenge to ensure that they are not launched accidentally or without authorisation. For example, communication with civilian leadership cannot always be ensured. This raises the important question of who has the finger on the nuclear button.

On a submarine, nuclear weapons would obviously be mated. This would be a departure from the existing policy exercised by both India and Pakistan, whereby, delivery systems and warheads are stored separately. With mated weapons, the chances of miscalculations and inadvertent use increase, thus, making the South Asian nuclear theatre even more unstable. One Pakistani expert expresses reservations on India's command and control structure and the risk of miscalculation and unauthorised launch:

"...operationalisation of a sea-based nuclear deterrent requires an elaborate command and control structure backed by satellite navigation and over-the-horizon communication means to maintain a constant link with the under-sea vessel carrying nuclear weapons. If the communication link with the vessel is disrupted, it could prove to be extremely risky. Since India's nuclear command and control structure is still evolving, it would, of necessity, pre-delegate the launch authority of a nuclear-tipped missile carried in a submarine thus raising the spectre of a miscalculation and an unauthorised launch."²⁷

²⁶ Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton University Press, 2014), 105.

²⁷ Ali, "Nuclearisation of the Indian Ocean Region."

He further argues that with an assured second-strike capability, combined with the perceived protection provided by an anti-ballistic missile shield, India would adopt a more aggressive posture in its approach towards China, Pakistan and other neighbouring countries of the region, which will be compelled to respond.²⁸

Pakistan has already voiced its concerns with India's operationalisation of its naval nuclear force. A statement by the Pakistan Foreign Office said, "the reported Indian tests of a SLBM and development of a nuclear submarine fleet are serious developments, which impact the delicate strategic balance of the region. It has resulted in the nuclearisation of the Indian Ocean."²⁹

The Indian nuclear triad promises to disturb a fragile strategic balance in the region. These trends have compelled Pakistan to develop a triad of its own. This would further perpetuate an arms race — both conventional and nuclear. It also introduces the issues of command and control, thereby, increasing the chances of accidental and unauthorised launch of nuclear weapons. In fact, introducing nuclear weapons in the Indian Ocean is like opening a Pandora's box of issues and dangers that the region may not be able to handle.

Policy Options for Pakistan

Pakistan has already started working on developing its sea-based nuclear capability. Pakistan has set up its Naval Strategic Force Command (NSFC) in 2012 and declared the intent to develop its own sea-based deterrent.³⁰ The official statement accompanying the inauguration said that it "is the custodian of the nation's Second-Strike Capability will strengthen Pakistan's policy of Credible Minimum Deterrence (CMD) and ensure regional stability."³¹

²⁸ Ibid.

²⁹ "India's Bid for 'Second Strike Capability' to Put Pressure on Pakistan, says SPD official," *Dawn*, May 15, 2016.

³⁰ Inter Services Public Relations Press Release No. PR-122/2012-ISPR, May 19, 2012, https://www.ispr.gov.pk/front/main.asp?o=t-press_release&date=2012/5/19

³¹ Ibid.

Given that Pakistan has not developed the miniature nuclear reactor technique and does not have nuclear-powered submarines, Pakistan's best option would be to mate nuclear-tipped cruise missiles with conventional diesel-electric submarines like *Agosta*. Some experts have ventured that the Pakistan Navy (PN) may attempt to station tactical nuclear weapons aboard surface ships or they have suggested that the service's P-3C Orion maritime patrol craft be given a tactical nuclear role. One retired naval expert suggests that "a suitably equipped P-3C could serve as a powerful back-up to an undersea second-strike on board *Agosta* 90Bs. A well-thought-out employment strategy could render the P-3C a potent constituent of the nuclear triad."³² Another expert comments that "Pakistani security managers appear to have opted for a more unconventional nuclear force structure, strongly emphasising dual-use platforms and strategic ambiguity."³³ Therefore, in the absence of nuclear submarines, Pakistan may rely on the diesel submarines and dual use platforms to achieve a second-strike capability.

Pakistan has already made landmark achievements towards developing a sea-based nuclear deterrent. In January 2017, Pakistan successfully test-fired its first ever nuclear-capable Submarine-Launched Cruise Missile (SLCM), *Babur-III*, with a range of 450 km. The statement that accompanied the test was significant, "The successful attainment of a second-strike capability by Pakistan represents a major scientific milestone; it is manifestation of the strategy of a measured response to the nuclear strategies and postures being adopted in Pakistan's neighbourhood."³⁴ The statement clearly indicates that the test was in response to the Indian nuclear triad.

However, since Pakistan has limited financial resources, any sea-based nuclear force has to be limited in nature. It cannot afford to get into a costly arms race at sea with India. Therefore, any deterrent it will field at sea has to be limited and reliable. It has already achieved a second-strike capability. However, it needs to work on improving its conventional submarines and other nuclear launch platforms at sea.

³² Muhammad Azam Khan, "S-2: Options for the Pakistan Navy," *Naval War College Review* 63, no. 3 (2010)

³³ Rehman, "Murky Waters."

³⁴ "Pakistan Attains 'Second Strike Capability' with Test-fire of Submarine-launched Cruise Missile," *Dawn*, January 11, 2017.

In view of its financial constraints and the general undesirability to introduce nuclear weapons at sea, Pakistan also needs to exert diplomatic pressure on India to stop vertical proliferation. Pakistan has already declared its intention of highlighting the dangerous implications of India's plans to nuclearise the Indian Ocean at all relevant international fora. It is also pursuing a specific proposal to move a resolution in the UN General Assembly to declare the Indian Ocean a Nuclear-Weapons-Free-Zone (NWFZ).³⁵ The international community can play a significant role in checking India's vertical proliferation of nuclear capabilities. The obligation, now, lies on all the 32 littoral states that straddle the Indian Ocean to co-sponsor this resolution. Placement of nuclear weapons in the Indian Ocean poses a danger to all the littoral states. Accidental or unauthorised use of nuclear weapons endangers all the surrounding states since the resulting radiation can contaminate large areas. It is, therefore, in the interest of all the littoral states to work towards keeping the Indian Ocean a NWFZ.

Conclusion

India's extensive naval build-up and its sea-based nuclear developments would irreversibly disturb the strategic stability in the region. The Indian Ocean would be in danger of becoming the most nuclearised of the seas with the great powers already present, India joining in, and perhaps Pakistan following suit. The introduction of nuclear weapons in the Indian Ocean is a threat to the security of the region. India's vertical growing nuclear proliferation is deliberately being overlooked in the global institutions, directed to promote nuclear non-proliferation. India's strategic partnerships with the US and other major powers are growing that in return accelerates India's conventional and non-conventional naval build-up.

India has a huge economy and large budget that it has dedicated to the expansion and up-gradation of its naval capability. This is partially to develop a blue-water navy so that it can project its power in the Indian Ocean and beyond and become a hegemon in the region. It is also, in part, to

³⁵ It was the adviser to Prime Minister on Foreign Affairs, Sartaj Aziz, who informed the Senate that Pakistan is considering moving a resolution in the United Nations. However, there has been no further movement on this proposal. See "Pakistan will Push UN to Declare Indian Ocean 'Nuclear Free Zone', says Aziz," *Dawn*, May 19, 2016.

counterbalance China's growing influence in the region. However, the Indian naval build-up is a threat for Pakistan. It also gives India fearsome war-fighting capabilities at sea, which would put Pakistan at a highly disadvantageous position in the face of an armed-conflict. The Indian naval expansion is undermining the naval stability in the region. However, the most threatening of all is the fact that India is fast developing its nuclear triad, which further promises to destabilise the regional balance as well as introduce the spectre of accidental or unauthorised use with disastrous consequences.

Pakistan has a small economy and cannot afford to develop a large fleet. It has a minimal naval capability to defend its vital interests at sea and it would continue to modernise its platforms considering changing trends in the Indian Ocean region. Pakistan's best policy option would be to bring accuracy in its naval nuclear capability in order to ensure survivability of its second-strike capability to preserve the credibility of its nuclear deterrent. Still even a second-strike capability by both adversaries would not bring stability to the region because it will further accelerate unavoidable arms race between India and Pakistan at sea. Pakistan needs to proactively highlight India's growing vertical naval proliferation at all relevant international fora to exert diplomatic pressure on India to curb its ambitions to field nuclear weapons at sea to avoid arms race and accidental risks of war.