

Rising Strategic Instability and Declining Prospects for Nuclear Disarmament in South Asia: A Pakistani Perspective

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Growing instability marks the evolving security environment between Pakistan and India and hence modifies their strategic priorities. The prevailing security dynamics in the region, such as changing nature of conflicts, introduction of new technologies, evolving deterrent force postures, and suspension of Confidence Building Measures (CBMs), have increased states' reliance on arms build-up and decreased their inclination to arms control and disarmament. This paper offers a Pakistani perspective on how the prevailing regional environment seems less favorable to nuclear disarmament and more inclined to deterrent force modernization. To explain the above rationale, this study takes guidance from primary and secondary sources to assess disarmament challenges, and discusses the prospects for creating a new security environment in the region to promote a renewed consensus on nuclear disarmament.

Keywords creating an environment for nuclear disarmament (CEND), nuclear weapons free zones (NWFZs), strategic stability, deterrent force modernization, arms control, disarmament

Introduction

In wake of growing emphasis on the Treaty on the Prohibition of Nuclear Weapons (TPNW) by the non-nuclear armed states, the former American Trump administration introduced an initiative called Creating an Environment for Nuclear Disarmament (CEND) (UNDOC 2019, 1-4). With an aim to create a security environment conducive to pursuing nuclear disarmament, CEND focused on initiating inter-state dialogue to comprehend the global security context, their respective security concerns, bilateral threat perceptions, and prospects to build mutual trust (Abbasi 2019). Instead of focusing on numerical arms reduction and elimination of nuclear weapons, CEND adopted an incremental approach to improve the contemporary security environment, instead of pursuing nuclear

disarmament (Kurosawa 2020, 283-98). This article explores the causal relationship between the security environment and the pursuit of nuclear disarmament. To assess regional relevance of renewed emphasis on nuclear disarmament, an exploratory research methodology was employed and a South Asian case study was used to analyze how the regional security environment and the prospects for nuclear disarmament are correlated. From a Pakistani perspective, this article evaluates the prospects of enhancing mutual security in South Asia, which in turn will help improve the security environment.

South Asia is among the most complicated nuclearized regions of the world, where the security situation between Pakistan and India is marred by outstanding territorial disputes, the threat of terrorism, intensifying military competition, military application of emerging technologies, and a high probability of war due to a lack of escalation control mechanisms. The nuclearization of the region has prevented outbreak of any full-scale war between the two states, but their bilateral rivalry persists despite the existence of nuclear deterrence (Lalwani and Haegeland 2018). The prevalent security dilemma—"a situation in which one state's efforts to increase its own security reduces the security of others" (Glaser 2011, 82)—leads to intense nuclear arms competition in the region (Herz 1950). Crises that took place after overt nuclearization of the region in 1998 also signify that the two states are trapped in a stability-instability paradox, a dilemma in which stability exists at the level of potential all-out nuclear war, while the sub-strategic level is unstable (Jervis 1984, 140). India and Pakistan fought a limited war in Kargil in the disputed territory of Jammu and Kashmir in 1999 (Lavoy 2009, 3) and faced the Twin Peak crisis in 2001-2002 (Nayak and Krepon 2014, 10), as well as subsequent violations along the Line of Control (LoC). The 2008 Mumbai attack and ensuing crisis further exacerbated the mistrust and communication gap between the two states (Nayak and Krepon 2012, 47).

In the aftermath of the 2016 attack in Uri, inside the disputed territory of Jammu and Kashmir, the situation further intensified when India claimed it launched retaliatory "surgical strikes" inside Pakistan (Lalwani and Haegeland 2018, 23-56), strikes that Pakistan denies (Khan 2016). More recently, a crisis in February 2019 brought the two states to the brink of another war. The Indian government under Prime Minister Modi decided to abrogate Articles 370 and 35A of the Indian constitution, which removed the autonomous status of Indian Occupied Kashmir (IOK) and turned it into two federal unions (Farooq and Javaid 2020, 2). Kamran Akhtar, Director General (DG) of Arms Control and Disarmament in the Pakistani Ministry of Foreign Affairs (MoFA) believes that "[it has] further undermined strategic stability and vitiated the security environment" (authors' interview with Kamran Akhtar, DG Arms Control and Disarmament, MoFA Pakistan, Islamabad, December 4, 2019). Riaz Khan (authors' interview with Riaz Khan, former Foreign Secretary of Pakistan, Islamabad, December 10, 2019) and Asif Durrani (authors' interview with Asif Durrani, former

Ambassador of Pakistan, Islamabad, December 4, 2019) observe that this development has further aggravated the tense situation in the region.

The term “strategic stability” emerged as a concept during the Cold War. It means the “absence of armed conflict between nuclear-armed states,” but more broadly, it signifies the “absence of incentives to use nuclear weapons first (crisis stability) and absence of incentives to build up a nuclear force (arms race stability)” (Acton 2013, 117). However, more recently, the changing character of warfare has significantly affected states’ understanding of strategic stability. New tools for political and economic coercion and growing willingness among aggressive states to fight below the threshold require that strategic stability not be viewed solely on the basis of deterrence stability. In South Asia’s scenario, Brigadier Zahir Kazmi defines strategic stability as “a fruit of [the] relationship between India and Pakistan that encompasses the political conditions, security circumstances, doctrines, and force posture that mutually preserve peace, prevent crises escalation, and resolve disputes to reduce risk of a war—especially a nuclear exchange” (Kazmi 2017). Nevertheless, this article focuses more on deterrence stability to evaluate how emerging force postures, crisis instability, and arms race instability influence the prospects of disarmament.

Considering this framework of stability, mutual suspicion and competition to maximize relative security have exacerbated crisis instability in South Asia. When deterrence achieves stability, uncertainty decreases, the security dilemma diminishes, and peace becomes possible (Acton 2013, 127). Contrary to this, however, nuclear weapons have gained salience in war fighting strategies, rather than generating a deterrence effect. As a result, weapons asymmetry increases, mutual trust decreases, peace becomes precarious, and disarmament proves to be a distant dream in the region. This study argues that the South Asian security environment seems less favorable to nuclear disarmament and more inclined to deterrent force modernization—a belief shared by the two sides, as outlined in a 2004 joint statement in which they mutually recognized nuclear deterrence as a factor of stability (MEA India 2004). This article assesses the challenges that constrain the trust building necessary to promote disarmament goals while making CEND relevant to South Asia.

Why is Disarmament a Distant Dream in South Asia?

The Indian perspective on regional strategic stability is informed by its strategic trilemma, whereby China is perceived as the primary external threat that shapes India’s nuclear posture (Eihnorn and Sidhu 2017, 5). This conceptual framework of strategic trilemma enables India to project China as a primary factor behind its nuclear force developments. India, however, does not feature prominently in China’s strategic calculus, and Chinese decision-makers and analysts remain

dismissive about the relevance of nuclear weapons within the India-China dyad, as was manifested during the recent Galwan crisis in 2020 (Dalton and Zhao 2020, 1). The global power shift has introduced a new cold war between the US and China. In the backdrop of the US-China power competition, the US considers India to be a stabilizer against China in Asia (Curtis 2007, 15). India is using the opportunity to cultivate its relationship with the US to advance its broader strategic interests and, more specifically, to create opportunities for India to buy sensitive high-tech systems and technologies in the global market to boost its wealth and power (ibid., 26). Projecting China as a primary threat, India increases its reliance on force modernization and the introduction of new technologies. However, New Delhi's build-up of its nuclear arsenal under this pretext threatens the already fragile strategic stability vis-à-vis Pakistan (Dalton and Zhao 2020, 12). In addition to these aspects, Pakistan remains the primary object of India's changing strategic thinking and evolving nuclear posture, as will be discussed in subsequent sections. These dynamics merit a focused assessment of South Asian strategic stability to study how the deterrent relationship between Pakistan and India affects prospects for nuclear disarmament.

The growing complexities and evolving crisis situation between the two states have consequences for building consensus on CEND. Zamir Akram, Pakistan's former permanent representative to the United Nations (UN) and other International Organizations in Geneva, argues that CEND lacks balance between the arms control debate and building consensus on disarmament. Akram contends that CEND is therefore unlikely to affect states' behavior in South Asia (authors' interview with Zamir Akram, former Permanent Representative of Pakistan to UN, Islamabad, December 5, 2019). The underlying challenges for CEND and the disarmament debate in the region include the two states' status as not being party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), deepening inter-state rivalry, deterrent force modernizations and doctrinal ambiguities, introduction of new technologies (Abbasi 2019), growing asymmetries in weapon grade fissile material (Ahmed 2017, 46), inadequate early warning systems, and an absence of arms control and Confidence Building Measures (CBMs) (Khan 2018, 83). The section below identifies key constraining factors that shape the South Asian strategic environment and consequently undermine prospects for disarmament.

A Blow to the Centrality of the NPT

The NPT-centric global nuclear order is comprised of legal, political, and normative parameters (Carranza 2009, 2). Along with promoting peaceful uses of nuclear technology, the regime pursues non-proliferation and disarmament as its essential objectives. However, it has proven to be only partially successful at achieving its nuclear non-proliferation goals and has almost failed to make progress on nuclear disarmament. In terms of its successes, the global nuclear

regime has prevented the expansion of the number of nuclear armed states, contrary to former US President Kennedy's prediction that "15 to 25 states would obtain nuclear weapons by 1975" (Lavoy 2004, 1).

The following aspects further validate that the NPT plays a central role in stabilizing the global nuclear order. First, the Treaty's wider membership has strengthened the nuclear non-proliferation process. Second, Japan, Taiwan, and South Korea abandoned nuclear weapons and joined the NPT while Southeast Asia, South America, and Central Asia declared themselves to be Nuclear Weapons Free Zones (NWFZs). Other states such as Ukraine, Belarus, Kazakhstan, and South Africa also gave up their nuclear weapons and joined the Treaty. In 2003, Libya opened its facilities to international scrutiny. Although these states chose to remain nuclear-free voluntarily and not as a direct consequence of the NPT, their adherence to the Treaty nonetheless adds value to its credibility. Third, the combination of practical and ideational factors contributed to the promotion of the NPT's non-proliferation goals. For example, the following arrangements provide crucial support to the NPT by complementing legal frameworks to strengthen the normative prong of the nuclear order: the IAEA safeguards system, multilateral export control regimes, states' efforts to pursue arms control like US-Soviet bilateral treaties (Kimball 2020), the Nuclear Security Summit (NSS) led by former US President Obama, the EU consortium on nuclear non-proliferation and disarmament, as well as global voluntary movements, such as Green Peace, Campaign for Nuclear Disarmament, and Global Zero.

On the other hand, the NPT-centric order has failed to build enough trust among regional rival states for them to be included in the global disarmament endeavor. Notably, ceasing international tensions and strengthening mutual trust has been essential to facilitate cessation of nuclear weapons development, liquidation of existing stockpiles, and eventual elimination of nuclear arsenals. However, there seems to be little progress toward these ends at regional and global levels. In the South Asian context, the NPT proves to be an inflexible treaty that fails to address the following three basic concerns: integrating the so-called de-facto nuclear armed states into the global nuclear order, strengthening deterrence stability by promoting arms control culture, and connecting these regional states to the global disarmament endeavor. This failure signifies the Treaty's non-universal status. India and Pakistan abstained from joining the NPT and considered it to be a discriminatory arrangement (Soofi 2019, 587). Since the NPT only recognizes five countries as legitimate nuclear armed states, the non-nuclear armed states, as a logical corollary, are barred from acquiring nuclear weapons. It generates the perception that the NPT is primarily focused on preserving the interests of the UN Security Council's five permanent members, or the P5 (Boothby 2012, 24).

At the time of the NPT's entry into force in 1970, India expressed concerns about the lack of progress on nuclear disarmament by other states. India's then-

ambassador implicitly suggested that if the greater powers and the UN failed to achieve nuclear and general disarmament soon, states like India would likely move to acquire their own deterrent arsenals (Perkovich 1999, 68). New Delhi further maintained that it does not “accept a regime that creates an arbitrary division between [the] nuclear haves and have-nots” (Haass and Halperin 1998, 42). In parallel, Pakistan also refused to join the NPT and conditioned it to India’s adherence to the Treaty or to the provision of security assurances by the international community. Agha Shahi, Pakistan’s permanent representative to the UN, emphasized that Islamabad’s position on the matter would be based on the geopolitical context in which it was situated (Chakma 2009, 17). During that time, Pakistan proposed to India seven regionally based initiatives to prevent nuclearization of the region (Khan 2010, 112). The most prominent of these included the proposal to establish a NWFZ in South Asia in 1974 (Ahmed 1979, 95), the joint declaration renouncing the acquisition and manufacture of nuclear weapons in 1978, mutual inspections by India and Pakistan of nuclear facilities, simultaneous adherence to the NPT, and also simultaneous acceptance of full-scope IAEA safeguards (Khan 2010, 121). India, however, rejected these initiatives and continued to steadily expand its nuclear program (Weiss 2007, 431). Pakistan’s policy in pursuit of a NWFZ in South Asia changed after the regional security environment was altered in 1998. Since then, it considers nuclear deterrent capability to be a national security imperative and necessary for stability in the region (ISPR 2016).

The following five reasons explain the undermining of the NPT’s effectiveness in South Asia with regards to disarmament goals. One, the NPT could not offer security guarantees to both states. Two, the Treaty failed to create a new provision for them to be recognized as legitimate nuclear armed states. Three, it also failed to pave the way toward creating an environment conducive to resolving intensified conflicts through trust building. Four, the exceptional Nuclear Suppliers Group’s (NSG) waiver to India in 2008 bypassed the NPT rules and thus undermined the credibility of the Treaty and further aggravated mutual mistrust and asymmetry. Lastly, the NPT-based regime could not encourage arms control and disarmament consensus at the regional level. Thus, the NPT debate on disarmament remains less significant in the region. Besides these factors, the two states’ approach to disarmament is somehow also linked to the strategic behavior of more powerful states. As Durrani argued, “nuclear disarmament is not beholden to South Asia alone. It has to be universal and across the board. The NPT recognized nuclear armed states cannot absolve of their responsibilities towards completed disarmament” (authors’ interview with Durrani, Islamabad, December 4, 2019). Meanwhile, the P5’s failure to meaningfully pursue disarmament and fulfill their legally-binding commitment under Article VI of the NPT remains a key impediment to general disarmament.

Undefined Status of the CTBT and FMCT

The Fissile Material Cut-Off Treaty (FMCT) is a proposed treaty that seeks to prohibit the production of fissile material for nuclear weapons (Baqai 2011, 268). Pakistan considers that only seeking a cut-off in future production of fissile material would lead to an asymmetry of stocks and that existing stockpiles should therefore also be taken into account (Akram 2014). Because of this stance, Pakistan is generally seen as the only country to halt the beginning of negotiations on the FMCT. However, Zamir Akram observes that “India is not keen on signing the FMCT. India supported the FMCT earlier in order for them to get an NSG waiver, and currently they are silent in order to secure NSG membership” (authors’ interview with Zamir Akram, Islamabad, December 5, 2019). He argues that India will use the NSG waiver to build up critical stock to procure fissile material and may resume further testing after achieving the desired level. To address such concerns, Pakistan proposes the Fissile Material Treaty (FMT), which includes existing stocks in its scope (Baqai 2011, 269) and seeks to eliminate asymmetries between states of stockpiles (Khan and Abbasi 2016, 34).

For Pakistan, the following factors deepen the impasse of the FMCT negotiations. First, it needs to be an impartial and universally verifiable treaty. A ban on the production of fissile material should therefore be promoted through a universal non-discriminatory treaty in the Conference on Disarmament (CD) (authors’ interview with Zamir Akram, Islamabad, December 5, 2019). Second, the FMCT should be conceived as a genuine disarmament measure, not devoted merely to the goals of non-proliferation (Akram 2014). Third, non-inclusion of existing stockpiles of fissile materials puts Islamabad in a disadvantageous position against its adversary. Durrani opines that the success of the FMCT depends on the accountability of existing stockpiles of fissile material held by nuclear powers, and that cherry-picking would not help the cause of nuclear disarmament in South Asia (authors’ interview with Durrani, Islamabad, December 4, 2019). Akhtar believes that such a treaty will be a non-starter, which relates to the exceptional NSG waiver to India. He suspects that the waiver may free up India’s domestic fuel for weapon purposes and accentuate asymmetries in South Asia (authors’ interview with Kamran Akhtar, Islamabad, December 4, 2019). Thus, the undefined status of the FMCT and states’ concerns regarding international practices that affect the regional security environment make disarmament an irrelevant debate in South Asia.

Both India and Pakistan have declared unilateral moratoria on nuclear testing (MoFA Pakistan 2021). The Comprehensive Nuclear Test Ban Treaty (CTBT) is currently witnessing a stalemate and still needs to be ratified by eight Annex 2 states, including the US and China, as well as India and Pakistan. In 2016, Pakistan proposed to India a bilateral agreement for a moratorium on nuclear testing. India, however, has not shown any willingness to sign the CTBT, which consequently affects Pakistan’s perceived security threat from its eastern

neighbor. Akram argued, “Pakistan would not consider signing the NPT or the CTBT unilaterally unless India does it first” (authors’ interview with Zamir Akram, Islamabad, December 5, 2019). Pakistan’s unilateral adherence to the CTBT is not likely to impress India or put greater strategic pressure on it to follow suit. Despite not being part of the CTBT, Pakistan has refrained from showing any interest in conducting more nuclear weapons. However, this position remains dependent on India’s evolving nuclear posture. Akram believes that “India wants to keep the option open for future nuclear testing and if it tests again, Pakistan could revisit its conditional moratorium” (authors’ interview with Zamir Akram, Islamabad, December 5, 2019). In the context of reports in May 2020 that the US could resume nuclear testing, experts believed that such a development may encourage India to do the same. It would provide New Delhi with an opportunity to test a thermonuclear bomb that it could not test in 1998 and consequently overcome the critical gap in its nuclear force posture (Joshi 2020).

The prospects for the CTBT’s success are directly linked to the decisions of major nuclear armed states and their approaches towards the non-proliferation regime. Pakistan’s policy of attaching its position to India rather than taking a unilateral approach to signing the CTBT is driven by multiple factors. First, Pakistan is not certain whether India would abide by its commitments, given its intentions to build hydrogen bombs and its desire to project power in the broader Asia-Pacific region (Levy 2015). Second, there seems to be little incentive for Pakistan to sign the CTBT as it is unlikely to be recognized as a legitimate nuclear weapons state, even if it signs the Treaty. Third, Pakistan may not secure substantial international support for its peaceful nuclear program, unlike India who has already gained the special NSG waiver, despite not being a signatory to either the NPT or CTBT. Finally, unilaterally joining the CTBT does not serve Pakistan’s national security purpose given India’s intentions for further nuclear tests. Joining and then leaving the CTBT because of India’s possible future nuclear tests would not be a logical move, either, given the probable strategic pressure that would be mounted on Islamabad to either comply with the global nuclear regime or be ready for punitive sanctions (Khan and Abbasi 2016, 35).

Akhtar argued, “Pakistan has always supported the objectives of the CTBT. However, in the face of Indian belligerence, no political government in Pakistan can afford to be seen making unilateral concessions” (authors’ interview with Kamran Akhtar, Islamabad, December 4, 2019). Khan explains,

I see no prospect of India agreeing to signing the CTBT. Pakistan can upgrade its unilateral commitment to signing the treaty but with the caveat that under changed circumstances it could resume testing. The treaty provides for such a reservation. But for the time being, its unilateral commitment is sufficient, unless signing of CTBT provides a substantive incentive (authors’ interview with Riaz Khan, Islamabad, December 10, 2019).

Hence, the undefined status of the CTBT only contributes to the uncertain strategic environment. The possibility of New Delhi's resumption of nuclear testing thus makes the disarmament debate more challenging for states in South Asia.

Lack of Consensus on the TPNW

The TPNW has also triggered debate between deterrence supporters and non-nuclear armed states who advocate for the Treaty. The nuclear armed states consider the TPNW to be incompatible with the NPT (Kimball 2021). While the TPNW calls for making nuclear weapons illegal for all countries, the NPT provides a monopoly on such weapons to the five countries that had proliferated before 1968. The major challenge is that the nuclear armed states did not participate in the negotiations of the TPNW, nor did the other states possessing nuclear weapons outside the NPT, such as India, Israel, Pakistan, and North Korea. As the nuclear armed states made clear after the Treaty was finalized, it is unrealistic in the current international security climate to expect them to eliminate their nuclear weapons. Thus, the supporters of deterrence believe that the TPNW strains the existing nuclear disarmament and non-proliferation process, which destabilizes the existing NPT and fragments international solidarity for a world without nuclear weapons. The nuclear armed states' focus on deterrence and their passivity toward the TPNW have consequently stimulated grave disappointment and a step backward from the goal of a world without nuclear weapons. This situation thereby sets a precedent for non-NPT nuclear states to stay away from the TPNW.

The first key point here is that the advocates of the TPNW, who generally argue on the base of humanitarian consequences of nuclear weapons, fail to build a strong link between security and progress on disarmament. The importance of this linkage between security and progress on disarmament was acknowledged by the First Special Session of the UN General Assembly on Disarmament (SSOD-I) (UN 1978, 3). There was consensus among the international community that disarmament must be non-discriminatory and proportional, with powerful nuclear weapons holders taking the lead. The outcome document of the SSOD-I, reflecting consensus of the international community on nuclear disarmament modalities, provides for proportionate reductions in a step-by-step manner while ensuring that at no stage of the disarmament process is a state or a group of states placed at an advantage in relations to other states (Kimball 2021).

The opponents of the TPNW view it as diverting attention from other disarmament and non-proliferation initiatives, such as negotiating a FMCT or ratifying the CTBT. They have expressed concern that the TPNW could undermine the NPT and the extensive safeguard provisions of the IAEA. It can, therefore, be argued that the humanitarian approach to the abolition of nuclear weapons has widened the gap between the nuclear armed states and

non-nuclear armed states rather than bridging it. Moreover, a number of the TPNW-supporting states who are also members of the NSG, voted in favor of the 2008 NSG exemption granted to India for nuclear trade, despite India's non-acceptance of the IAEA comprehensive safeguards. Such exemptions, while undermining the credibility of the non-proliferation regime, raises doubts about the degree of altruism underpinning global disarmament efforts. Though the entry into force of the TPNW could be considered a step toward strengthening the international norm against nuclear weapons, to what extent it constitutes a part of or contributes to the development of customary international law is highly debatable, given nuclear possessor states' opposition to the treaty.

NSG Waiver Recedes Disarmament Discussions

The US political decision on a NSG waiver (Hibbs 2018) granting India access to global fuels and reactors has dented the rules-based broader non-proliferation order. That is, as a non-NPT state, India has been offered benefits that are usually only provided to NPT states, yet without having to freeze production of weapon grade fissile material, sign the CTBT, follow the IAEA's full scope safeguards, or adhere to a meaningful arms control mechanism. Experts believe that while extending concessions to India, the US non-proliferation considerations took a backseat to its other policy objectives, which mainly include countering China (Potter 2005, 347). This decision has thus transformed India from a target of the international non-proliferation regime to a stakeholder in it, allowing New Delhi to secure international assistance for its civilian nuclear reactors without any legal commitments to pursue disarmament or to halt its rapidly expanding nuclear weapons program (Ahmed 2017, 2). Ashley J. Tellis, one of the architects of US nuclear policy toward India (Potter 2005, 346), advised that any attempt to integrate New Delhi "into the non-proliferation order at the cost of capping the size of its eventual nuclear deterrent" would be a mistake as it would place India at a disadvantage in relation to China, which would also undermine American interests (Tellis 2005, 25).

This deal may create an imbalance of power and offer New Delhi a foundation for technological modernity, scientific competence, and achieving domestic energy independence. Zamir Akram estimates that "this waiver has given India the potential to build fifty weapons in a year" (authors' interview with Zamir Akram, Islamabad, December 5, 2019). India's modernization plans also include the production of larger quantities of fissile material for nuclear weapons production. It could choose to build a larger plutonium-production reactor to add CIRUS and Dhruva, its two weapon-grade plutonium-production reactors at the Bhaba Atomic Research Centre in Bombay (Ahmed 2017, 15). Presumably, it would be another way that India could increase its fissile material stockpile to

expand its small-scale centrifuge enrichment program and make highly enriched uranium for nuclear weapons. These concerns directly shape Pakistan's threat perception with regards to India and consequently affect its reliance on nuclear weapons. Khan argued that "Pakistan clearly regards [the] NSG waiver to India as a discriminatory act and denial of the same to Pakistan as impacting on its security. This has implications for Pakistan's position relating to disarmament in the South Asian region" (authors' interview with Riaz Khan, Islamabad, December 10, 2019).

The following factors related to the exceptional NSG waiver to India further aggravate Pakistan's security concerns. First, the US will not ask India to segregate military and civilian nuclear facilities by placing all the civilian facilities under the IAEA's safeguard system. Hence, there will be little transparency regarding India's use of fissile material for the production of nuclear weapons. Second, NSG member states are unlikely to pressure India to adopt any legally binding disarmament-related measures or even sign the CTBT. A third factor is that the US cannot keep India from testing a hydrogen bomb. Fourth, the deal contains no provisions to bind India to initiate an arms restraint arrangement in the region with China or Pakistan. The fifth relevant concern is that the deal has created pathways for India to secure its NSG membership, which in turn has created a new debate on non-NPT states' criteria for adherence to NSG rules. A sixth concern is that given India's history of violating peaceful nuclear use agreements, access to the international nuclear market may encourage it to divert nuclear technology to produce nuclear weapons (Jaspal 2008). Lastly, the deal serves as an instrument for New Delhi to pursue its global political aspirations and revisionist foreign policy agenda, like creating a pedestal for India to secure UNSC membership. These concerns about the exceptional NSG waiver drive the focus of South Asian states away from disarmament and toward the acquisition of new technologies and deterrent force modernization. Akram and Khan believe that the NSG waiver has severely impacted the prospects for arms control and disarmament in South Asia (authors' interview with Zamir Akram and Riaz Khan, Islamabad, December 5, 2019). The NSG serves as an effective export control arrangement, but it currently stands at a crossroads on the issue of whether to include non-NPT states (Qutab 2019, 27). Rather than an inherently destabilizing approach to the membership of non-NPT states, the adoption of a uniform criteria-based approach would strengthen the global non-proliferation regime.

New Technologies and Arms Race Instability

The current security situation has led India and Pakistan to an aggravated nuclear asymmetry and arms race. A growing Indo-US strategic partnership, India's rapid growth of its defense arsenals and platforms, the revision of India's doctrine

such as moving away from counter-value strikes to counterforce/disarming preemptive strikes (Clary and Narang 2018, 8), growing threats of escalating to a nuclear level, and eroding crisis stability between the two states create stress on the regional stability and disarmament debate. The section below highlights the increasing pace of the arms race between the two states in an environment of suspicion and distrust.

India is rapidly modernizing its deterrent force and estimates suggest that it currently possesses around 150 nuclear warheads (Kristensen and Korda 2018, 361). India's inventory of operational land-based ballistic missiles includes the short-range Prithvi-II and Agni-I, the medium-range Agni-II, and the intermediate-range Agni-III. The nuclear or conventionally armed Prithvi-II has a range of 250-350 km. The Agni ballistic missiles have the potential for nuclear delivery. The road-mobile Agni-I, for example, has dual capability, with a range of 700 km. The Agni-II and nuclear-capable Agni-III have a range of 2000 km and 3200 km, respectively. The Agni-IV incorporates advanced technological features, including composite rocket engines, improved stage separation, and a state-of-the-art navigation system (Khan and Khan 2020, 193). India successfully launched the Agni-V intercontinental ballistic missile (ICBM) in 2015. Meanwhile, the country is also developing multiple targetable independent reentry vehicles (MIRVs) and more maneuverable warheads (Joshi et al. 2016, 49). These trends raise questions whether Indian nuclear force development is directed by its principle of 'credible minimum deterrence' or whether it aims to build nuclear war fighting capabilities (Joshi and O'Donnell 2019, 25).

New Delhi is also modernizing its sea and land-based forces and delivery platforms for its nuclear weapons. Its two or three squadrons of Mirage 2000H and Jaguar IS/IB fighter-bombers remain at the core of India's nuclear strike force (Joshi and O'Donnell 2019, 25), with a range that extends deep into Pakistan and China. At sea, India is building ballistic missile submarines (SSBNs) and ship-launched ballistic missiles (Joshi et al. 2016, 3-11). The first SSBN, the Arihant, embarked on sea trials in 2014 and in 2016. A second Arihant class nuclear submarine is currently undergoing sea trials (Kaur 2021, 167) and development of the third submarine is also underway. The Arihant will carry a K-15 Submarine-Launched Ballistic Missile (SLBM) with a range of 700 km. The second class of SLBMs is K-4 with a range of up to 3500 km with the ability to strike targets in Pakistan, China, and the Indian Ocean. India is also working on a K-5 SLBM with 5,000 km range. More so, the 350 km range Dhanush missile is also a naval version of Prithvi-II, which gives India rudimentary sea-based nuclear strike capability.

India is also working on a land, sea, and air capable Nirbhay subsonic ground-launched cruise missile, with a range of 700-1,000 km. The sea-launched Nirbhay is being improved for the Arihant submarine, while an air-launched version is being developed for the Su-30MK1 combat aircraft (Kaur 2021, 167).

India has initiated testing of indigenous endo and exo-atmospheric missile defense systems, the Advanced Air Defense (AAD) and Prithvi Air Defense (PAD), respectively (Hussain 2018). It also purchased the Russian S-400 air defense system capable of intercepting short- and medium-range ballistic and cruise missiles. India is upgrading and extending the service life of its Mirage and Jaguar fighter bombers and plans on purchasing thirty-six Rafale aircraft from France. India's Kiev-class aircraft carrier INS Vikramaditya (purchased from Russia) entered service in 2013. Two Vikrant-class aircraft carriers are expected to be in service by 2025 (Ho 2018, 71-95).

In 2012, both India and the US initiated the Defense Technology and Trade Initiative (DTTI) (Carroll 2018) to collaborate in the following areas: the establishment of a chemical-biological protective ensemble of troops, the development of mobile electric hybrid power stations, building the next generation of small unmanned aircraft, an intelligence and surveillance module for transport aircraft, digital helmet-mounted displays, and the joint biological tactical detection systems. Despite having a large domestic defense industry, India needs strategic partners like France, Russia, US, and Israel to buy high-tech and state-of-the-art technologies (Raghavan 2020, 42). India has purchased C-130 J and C-17 transport aircraft that both provides heavy lift capability and supports high altitude operations in the Himalayas. India is the first foreign country to get a P8-1 Poseidon maritime surveillance aircraft, adding to the defensive capability of its eastern naval fleet, which protects Indian interests in the Bay of Bengal and the Andaman Sea.

India and the US have also agreed to a military logistics exchange, known as the Logistics Exchange Memorandum of Agreement (LEMOA), to promote sharing between the two states of facilities for refueling, spare parts, and supplies (Limaye 2018, 94). In September 2018, India and the US announced the signing of the Communications Compatibility and Security Agreement (COMCASA) (Sigdel 2020, 149). The COMCASA will allow India to procure critical defense technologies, access communication networks, and ensure interoperability between the two forces. The two also signed the Basic Exchange and Cooperation Agreement (Mukherjee 2020, 423) in October 2020 for sharing geospatial intelligence and may prove critical for sharing data pertaining to the disposition of adversaries' forces. A further agreement was made to initiate exchanges between the US Naval Forces Central Command (NAVCENT) and the Indian Navy as part of deepening maritime cooperation in the western Indian Ocean. These agreements will allow India better freedom of navigation and mobility in the entire Indian Ocean region (IOR) and the blue waters of Asia-Pacific, thereby advancing its defense capacity. Akhtar argued:

[India] is seeking military superiority and is driven by aspirations of regional, and global, dominance. Extra-regional powers have also pandered to this revisionist

agenda by designating India as a net security provider. This is a dangerous proposition, which bestows on India a sense of entitlement to build military power and adopt aggressive postures which are much beyond India's genuine national security requirements (authors' interview with Kamran Akhtar, Islamabad, December 4, 2019).

The above discussed the military developments that directly contribute to India's strategic posture and to shaping the regional security environment. Pakistan perceives India's deterrent force modernization as offensive, which increases the former's insecurity and uncertainty, and aggravates regional asymmetries and creates more space for misperceptions and accidental war. Pakistan's evolving security posture is affected by a few plausible strategic changes occurring in South Asia. First, the growing Indo-US strategic partnership has strengthened Pakistan's security concerns. Second, the suspension of communication between India and Pakistan and a lack of any arms restraint arrangements make it more difficult for states to moderate the security dilemma, as the likelihood and number of conflict scenarios have increased while avenues for cooperation have decreased. Third, the emergence of new technologies and weapons systems, such as BMD systems and MIRVs, sea-based systems, and short-range missiles, have made deterrence stability in South Asia increasingly fragile. Fourth, India's recent procurement of five S-400 air defense systems has raised concerns in Pakistan and seems to have further aggravated the arms race in South Asia. For example, three of its five S-400 systems will be deployed against Pakistan (Samanta 2018). It seems this development may push Pakistan to produce more missile systems in search of deterrence stability.

Western estimates suggest that Pakistan possesses 140-50 nuclear warheads (Kristensen, Norris, and Diamond 2018, 348). It also has a small number of nuclear-capable delivery vehicles—many of which are dual-capable and thus could be assigned for conventional missions. On land, Pakistan possesses six land-based ballistic missiles. Its nuclear-capable short-range missile, called the Nasr, is designed to offset the Indian Cold Start Doctrine (CSD) under which India can carry out rapid and limited conventional attacks on Pakistani territory, with the nuclear threat looming (Joshi and O'Donnell 2019, 54). The road-mobile Hatf-II, Hatf-III, and Hatf-IV short-range ballistic missiles have maximum ranges of 180 km, 290 km, and 750 km, respectively. The Hatf-V (Ghauri) has a range of 1,250 km, and Hatf-VI (Shaheen-II) has a range of 1,500 km. Pakistan has also developed the Shaheen-III ballistic missile, which has the capacity to strike within 2,750 km and reach targets throughout India including Andaman and Nicobar Islands (Joshi and O'Donnell 2019, 58).

In the air, Pakistan possesses F-16A/Bs with a 1,600 km range. A Mirage-5 combat aircraft has also been assigned the nuclear role. The Mirage-3 has been used for test flights of the nuclear-capable Ra'ad air-launched cruise missile. By adding aerial refueling capability to the Mirage, the Pakistan Air Force enhances

its ability to effectuate nuclear strike missions (Kristensen, Norris, and Diamond 2018, 352). To replace its aging Mirage 5s, Pakistan has developed JF-17 fighters, with which the Ra'ad air-launched cruise missile may be integrated. At sea, Pakistan has established the Naval Strategic Forces Command to oversee the nation's second-strike capability and developed a Submarine-Launched Cruise Missile (SLCM), the Babur-III. Pakistan has lately tested the MIRV-capable Ababeel ballistic missile to counter Indian ballistic missile defense systems. The above discussion on strategic military buildup of both states illustrates that the arms race is on the rise, which increases the chances of accidental war, destabilizing regional deterrence, and consequently shrinking space for discussions about nuclear disarmament.

Doctrinal Ambiguities and War-Fighting Strategies

The 2003 draft revision of the Indian nuclear doctrine (MEA India 2003) strongly underpinned the policies of Credible Minimum Deterrence (CMD) and No-First-Use (NFU) of nuclear weapons, implying that it shall keep its nuclear arsenals on off-alert and in disassembled form to ensure restraint and civilian oversight. Under the NFU policy, India would not preemptively use nuclear weapons, but only in retaliation to a nuclear attack. The doctrine also stated that nuclear retaliation would be "massive and designed to inflict unacceptable damage" to an adversary (*ibid.*).

Adopting the CMD policy helps India demonstrate a normative posture in several ways. First, CMD policy focuses on the objective of maximizing security. Second, it safeguards and manages the command-and-control systems, as well as weapons systems (Abbasi 2015, 8). The CMD also restrains the arms race and allows the rival states to retain weapons for deterrent purposes. Under the nuclear overhang, India operationalized the concept of conventional war-fighting by adopting the Cold Start Doctrine (CSD). In the years since 2003, India's nuclear sufficiency and deterrent force modernization has shifted its military thinking away from the original conceptualizations of CMD and NFU toward a counterforce, preemptive, and disarming first-strike posture against Pakistan, if not China (Clary and Narang 2018, 10). This argument holds that improved technology and missile accuracy in India has enabled a departure from its massive retaliation policy to possible counterforce targeting against an adversary's military facilities, including nuclear forces and command-and-control and communication centers (Krepon 2017). This counterforce option appears doctrinally permissible and strategically advantageous (Menon 2016, 105-23). This option also leaves no ambiguity about India's real and premeditated intentions of using its technological growth for a strategy of disarming Pakistan.

This raises the question, why is India tempted to adopt a counterforce,

preemptive first-strike option? There are various potential reasons why India would choose this option. First, shifting political and economic trends from Europe to Asia have strategically placed India in an advantageous position that bolsters its strategic confidence. India's rising profile and potential role in hedging against China has deepened its bilateral trust and convergence of strategic interests with the US. Second, India's new role in Asia has allowed it to secure the NSG waiver, which creates access to the global market for India to procure cutting-edge technologies. This enables New Delhi to pursue strategic supremacy against Pakistan (Ahmed 2017, 42). Such advanced technological prowess thus encourages it to adopt a dangerous war-fighting, preemptive deterrent force posture (Clary and Narang 2018, 28). Third, through such posturing, India aims to drag Pakistan into a deliberate arms race by aggravating the power imbalance, which exploits Pakistan's vulnerabilities by inflicting psychological and resource burdens, while its economy is already struggling. Khan believes that counterforce strategies are only a fig leaf to justify ambitions for qualitative and quantitative improvements of weapon systems which presage the arms race and are inherently destabilizing (authors' interview with Riaz Khan, Islamabad, December 10, 2019).

For its counterforce targeting plans, India relies on the procurement of more weapons systems, increasing the number of highly accurate delivery systems, growing alert levels with the possible delegation of power to field commanders, and heavy reliance on MIRVs and BMD systems, confident that they will intercept an adversary's retaliatory strike. With these components of its counterforce targeting strategy, India believes it could minimize the repercussions of inadvertent escalation (Jaspal 2014, 120-30). Given India's growing nuclear arsenal, improving sensors and temptations for counterforce targeting strategies, Pakistan's security dilemma is likely to worsen, further diminishing its trust in India's stated commitment to follow its NFU policy. Durrani believes that the "Indian NFU policy was a façade as it never meant to follow this policy seriously. Access to nuclear fuel has made India to embark on an aggressive counterforce posture" (authors' interview with Asif Durrani, Islamabad, December 4, 2019). Likewise, Akram believes that by adopting the counterforce posture, "India wants to reestablish the CSD that was neutralized by Pakistan's full-spectrum deterrence" (authors' interview with Zamir Akram, Islamabad, 5 December 2019).

These growing counterforce targeting options undermine the retaliatory capability of adversaries by threatening the survivability of its nuclear weapons. Pakistan's arsenals that are survivable today can become vulnerable in the future if it fails to grapple with the changing patterns. It may have to improve research and development with modest resources to develop effective countermeasures, like improved early warning, reconnaissance capabilities, and more survivable second-strike options. This would also depend on Pakistan's economic revival and growth in the years to come. Indeed, Indian counterforce is embroiling the region in an unnecessary nuclear arms race and is likely to lead to dangerous

crisis instability and first-strike instability between the two adversaries. These trends only aggravate the states' reliance on nuclear weapons, while eroding the foundation of the disarmament debate in the region.

Arms Control Crisis and Diminishing Prospects of Disarmament

The CBMs between India and Pakistan have seemingly failed to either create an enabling environment for arms control or initiate discussions on nuclear disarmament. The hotline between the Directors General of Military Operations (DGMOs) and foreign secretaries (Krepon 2004, 19), the Agreement on Pre-Notification of Flight Testing of Ballistic Missiles, and the Agreement on Reducing the Risks from Accidents Relating to Nuclear Weapons, were the major bilateral nuclear agreements under the guiding framework of the 1999 Lahore Declaration (Khawaja 2018, 37). These measures, however, have little efficacy, particularly in the context of the evolving situation in Kashmir after India's unilateral revocation of the articles 370 and 65A. The bilateral nuclear CBMs between the two states are, arguably, predominantly influenced by the ongoing conflict in Kashmir. The scope of existing CBMs in South Asia remains largely confined to conflict-avoidance and crisis management and have little emphasis on conflict resolution. The heightening tensions around the Kashmir dispute reflect this gap and signify serious risk to crisis stability.

In 1999, however, Pakistan proposed a comprehensive Strategic Restraint Regime (SRR) to India, which it refused to accept (Chari 2004, 65). The proposed SRR had three interlocking elements: nuclear restraint, conventional balance, and resolution of core disputes, especially Jammu and Kashmir (Khan, Khan, and Hyder 2018, 83). India never aspires to initiate negotiations with Pakistan, but rather considers it a sign of weakness. New Delhi's continued unwillingness to engage in meaningful dialogue only adds to the frustration and CBM-fatigue in Islamabad. Zamir Akram explains, "Pakistan is always ready to engage with India on composite dialogue, but negotiations do not fit with Modi's fascist ideology" (authors' interview with Zamir Akram, Islamabad, 4 December, 2021). He further added, "Currently, there is no Western pressure on India to resume dialogue with Pakistan due to their shifted political goals from South Asia to Asia Pacific. Thus, possibility for resumption of dialogue seems bleak" (authors' interview with Zamir Akram, Islamabad, 4 December, 2021). Moreover, the lack of CBMs and the absence of regional arms control arrangements have curtailed space for restraint measures (Khan 2019, 599). This in turn has paved the way toward offensive war-fighting strategies and counterforce postures with direct ramifications for crisis stability in the region. CBMs have no successful track record and an absence of arms control arrangements minimize the space for a consensus on nuclear disarmament.

Disarmament as a Low Priority Agenda

The pursuit of disarmament, or at least arms control, requires serious political will. However, the absence of strategic dialogue between adversaries only increases the reliance on nuclear weapons, the inability to explore alternatives to address security problems, and the lack of mutual understanding on shared threats and destructive consequences of the possible use of nuclear weapons. Such an environment also reduces space for the academic community and civil society organizations to influence public opinion and generate political pressure for discussions on nuclear disarmament. Conversely, the ongoing wave of nationalist-populism—as reflected in the successive terms of the Modi government (Plagemann and Destradi 2019, 283)—exploits public sentiments by creating war-hysteria, which only diminishes the prospects of arms control and disarmament.

Furthermore, states' alliance politics, inadequate and ineffective channels of communication, conventional force disparity and frequent border skirmishes can aggravate negative threat perceptions of one against the other. Threat perceptions usually are a function of power asymmetries that in turn exacerbate a state's dilemma of interpretation and dilemma of response and eventually trigger conflicts (Liaropoulos 2009, 202). Employment of hybrid warfare, states' interference in others' territory through proxies, political rhetoric like propaganda, hate speech, and competing or irreconcilable narratives breed a sense of heightened tensions. Such threat perceptions drive a vicious cycle of dangerous conditions under which misunderstandings could escalate to unprecedented levels of confrontation between nuclear powers. Such an environment requires concerted, though little, steps to develop mutual trust and pave the way toward a broader cause.

Essentials to Create an Environment for Nuclear Disarmament

Deterrence stability in South Asia can be achieved through arms control arrangements, risks reduction measures, promoting economic and cultural domains, and resolution of outstanding disputes through mediation or legal means. India and Pakistan may adopt an incremental approach on easing bilateral tensions to promote a security environment for nuclear arms control and further build consensus on nuclear disarmament. Nevertheless, it remains a difficult task to develop consensus on disarmament in South Asia. Akhtar believes that the “willingness of the parties to engage in sincere efforts for the resolution of outstanding disputes, eschewing aggressive military postures and doctrines, agreeing on CBMs and arms control measures, and [an] even-handed approach by extra-regional powers may lead the states to a renewed consensus on disarmament” (authors' interview with Kamran Akhtar, Islamabad, December 04, 2019).

This section identifies measures that may be pursued as a step-by-step approach for creating an environment for nuclear disarmament.

Reaching Consensus on Mutual Threats

Strategic rivalry between adversarial states represents a clash of competing interests (Kydd 2000, 229), while arms control signifies recognition of mutual threats, often termed mutual vulnerability, to each other's security (Ullah 2020, 125). Sustainable peace requires pursuing a common framework to stabilize the deterrence relationship, as was manifested during the Cold War. In the case of South Asia, reaching a common framework on requirements for a stable relationship may help the two states identify shared risks and explore ways to address the dangers that threaten regional peace and stability. Consider a scenario in which one nuclear armed state contemplates war-fighting strategies, including the use of counterforce weapons against their adversary's nuclear retaliatory capability, as well as launching conventional aggression below the nuclear threshold, to escape mutual vulnerability vis-à-vis the adversarial nuclear armed state. The prospects for arms control and disarmament in such a scenario would remain low. Hence, recognizing the fact that their nuclear capabilities hold them vulnerable against each other to form the core of nuclear deterrence is a pre-requisite condition for engaging in any desirable mechanism to ensure stability (Thee 1988, 65). In this regard, a strategic dialogue between Islamabad and New Delhi can facilitate discussions to identify mutual threats and vulnerabilities and eventually, in an effort to address shared risks, implement restraint on the development and deployment of certain weapon systems. In absence of any communication, however, the two sides are likely to remain confronting the dilemma of interpreting and assessing each other's military capabilities on the basis of worse-case scenario analyses.

Understanding Threat Perceptions to Promote Nuclear Restraint

Pursuing strategic dialogue between military leaderships can be helpful to comprehend underlying causes of conflicts that generate threats, and then find a mechanism to mitigate regional asymmetries and promote nuclear restraint. Nevertheless, the key question remains that how can such restraint be imposed in South Asia? Khan suggests that after normalizing their bilateral relations, Pakistan and India should formalize measures for risk reduction and crisis management (authors' interview with Riaz Khan, Islamabad, December 10, 2019). Both states recognized nuclear deterrence as a factor of stability in the region (MEA India 2004). They may build on this mutual understanding to further develop a recognition that the use of force is not feasible, and that the concept of total victory is not achievable. A shared belief on the dangerous escalation dynamics and consequences of the employment of nuclear weapons can thus pave the way toward decreasing reliance on nuclear weapons. Refuting strategic adventurism,

war-fighting strategies and ambiguous doctrines are essential for nuclear restraint. In the February 2019 crisis, after ill-conceived air strike at Balakot, Indian Prime Minister threatened Pakistan with *Qatal ki Raat* (the night of murder) which could rapidly lead to escalation of the conflict to nuclear level. Therefore, to enhance escalation control stability, both states may agree not to attack each other's early warning systems and avoid irresponsible and politically charged nuclear signaling. Instead of pursuing counterforce capability, there is a need to proactively address possible risks posed by emerging technologies. Akhtar suggests,

The emergence of new technologies can seriously undermine deterrence stability in South Asia and lower the threshold for war. Agreed measures for transparency and arms control are therefore imperative. Yet the prospects for the same are bleak since India has clubbed itself with the technology leaders who are not willing to accept any limitations on their freedom of choices and actions in terms of weapons development and deployments. Such a situation leaves no option for the adversary to look at countermeasures (authors' interview with Kamran Akhtar, Islamabad, December 04, 2019).

Fundamentally, discussions should emerge on institutionalizing a nuclear restraint regime. Such an agreement should also include an effective implementation of restraints on the production of BMD systems, an agreement on the elimination and non-acquisition of ICBMs, agreements on non-deployment of nuclear-capable ballistic missile systems, concluding agreements on the non-deployment of weapon systems in outer space, establishing a mechanism to appreciate evolving threats, such as cyber-attacks and drones, and an agreement to refrain from such attacks against each other's critical facilities.

Nuclear Transparency and Nuclear Confidence Building Measures (NCBMs)

The US and Russia possess around 91 percent of the world's nuclear weapons (Kristensen, Korda, and Norris 2021). Other nuclear armed states believe that Washington and Moscow have greater responsibilities to reduce their arsenals before other nuclear armed states could be asked for nuclear reductions and also for greater transparency (King 2019). A similar belief also seemingly prevails in South Asia. However, linking regional security threats solely to global dynamics has so far not proven valuable. The two states may work toward adopting a regional approach that calls for greater transparency about each other's strategic motives, doctrinal underpinnings, and nuclear arsenals. This would pave the way to controlling the arms race, to strengthening regional stability, and eventually to finding avenues for an institutional framework for the nuclear disarmament process. The New START (strategic arms reduction treaty) can be used as a template for nuclear arms control transparency (Reif 2018). Given the existing mistrust, a relatively doable and comprehensive transparency regime may involve

the exchange of information on deployed and non-deployed strategic systems, designating conventional or nuclear roles to dual-capability delivery systems, and ensuring separation plans for military and civilian facilities.

Ambiguous nuclear doctrines exacerbate the security dilemma. Nuclear transparency in South Asia requires discussions on the conditions that may prompt adversaries toward nuclear readiness and deployment. Enhanced transparency in nuclear doctrines and postures would simultaneously further stabilize deterrence and build upon other improvements that bridge the trust deficit through dialogue to create a pathway to disarmament. Simultaneously, following specific measures may strengthen crisis stability: an effective revival of bilateral hotlines to make military-to-military communication effective, promoting restraints on increasing the readiness of arsenals, and avoiding measures that lower the nuclear threshold while increasing crisis instability.

Bilateral Nonproliferation Agreement

The nuclear armed states in South Asia could consider signing a comprehensive bilateral nonproliferation agreement including some key features. Such elements include the establishment of a bilateral moratorium on the non-testing of nuclear weapons, working together to slow down their fissile material production, initiate discussions for a bilateral agreement on a separation plan for all nuclear facilities that would include opening up all civilian nuclear facilities to IAEA verification, linking the terms of this non-proliferation agreement to non-NPT states' membership of the NSG (Abbasi 2018). Akhtar believes that "there is no appetite for the revision of the NPT to accommodate the reality of nuclear weapon states outside the NPT. Under these circumstances the best options appear to be parallel agreed and non-discriminatory criteria for mainstreaming of the non-NPT states and commitments by the non-NPT states that are equivalent to the obligations of the nuclear armed states signatory to the NPT, in return for the same rights" (authors' interview with Kamran Akhtar, Islamabad, December 04, 2019). These measures may facilitate strengthening stability through restraint measures and help to create more space for consensus on disarmament.

Conclusion

The contemporary regional environment in South Asia has created a disarmament crisis, thereby making the goal of disarmament difficult to achieve. The evolving technologies, growing arms race, absence of CBMs, and a trust deficit between India and Pakistan has made negotiations on nuclear disarmament difficult to accomplish. It must be realized that there can be no victors in nuclear war and an unabated arms race only undermines strategic stability in the region. Therefore, it is imperative that the two states engage in sincere efforts to resolve

outstanding disputes, avoid aggressive military postures and doctrines, promote comprehensive CBMs, and initiate meaningful nuclear risk reduction measures to avoid war and stabilize deterrence. By adopting this multipronged regional approach, the two states can play leading roles in the creation of a favorable security environment that enables their desired objectives. The bilateral arrangements proposed in this article will help preserve arms control culture and complement efforts to create more space so that the regional level and global level goals of the CEND can be realized.

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Submitted: April 18, 2021; Revised: September 10, 2021; Accepted: October 18, 2021

