

# **Nuclear Arms Race in South Asia: Pakistan's Quest for Security**

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## **Abstract**

*The paper examines the nuclear arms race in South Asia. The security competition between India and Pakistan has been characterised by an action-reaction spiral. The paper traces the nuclear arms competition between the two South Asian rivals and argues that this relationship is a classic case of a security dilemma whereby one state's actions cause insecurity to the other, and the other state's efforts to augment its security make the first one insecure. The paper, thus, develops a theoretical explanation for the incessant arms race between India and Pakistan. India decided to take the nuclear weapons route, Pakistan followed; India developed sophisticated ballistic and cruise missiles, Pakistan followed; India adopted an aggressive doctrine, the Cold Start, Pakistan responded by developing tactical nuclear weapons; India is developing ballistic missile defence and Pakistan is sure to respond by adjusting its nuclear force posture. It is thus not the individual weapons systems but the security dilemma that is the cause of instability in highly volatile South Asia.*

**Keywords:** Security Dilemma, Nuclear Arms Race, Cold Start, Tactical Nuclear Weapons, Ballistic Missile Defence, Strategic Stability.

## **Introduction**

India and Pakistan have been locked into rivalry and competition right from their inception. The two countries have fought several wars and have been embroiled in many conflicts. Pakistan's major threat perception comes from India. India also perceives a threat from Pakistan but its security policy is also driven by its desire for status as a major power of the region. These respective security outlooks have translated into an arms race, initially a conventional one which has turned into a

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nuclear one since the two rivals developed nuclear weapons. In the last few decades, the two rivals have been locked in an action-reaction spiral of nuclear weapons and ballistic missile development. India decided to develop nuclear weapons, Pakistan followed suit in order to preserve its sovereignty; India initiated a ballistic missile programme and Pakistan followed the same route; India pursued an aggressive limited war doctrine, the Cold Start, Pakistan has reacted by developing tactical nuclear weapons (TNW). Similarly, India is developing a limited ballistic missile defence (BMD) capability, with future plans of an extensive system, Pakistan has responded by developing missiles designed to defeat and saturate the system and will surely adjust its nuclear force posture.

It is imperative that the action-reaction spiral that seems to characterise the relationship between India and Pakistan is studied. It is important to study and theorise on this phenomenon, in order to better understand its dynamics, how to stop the arms race or at least slow it down. The paper, thus, aims to develop theoretical explanations for the incessant arms race in South Asia. It will address questions as what drives the nuclear arms race in South Asia. What will be its effect on force postures, and nuclear thresholds? How does it affect deterrence stability? What can be done to mitigate the arms race?

### **Theoretical Framework**

The paper employs the single case study method. The objective of the paper is the development of theoretical explanation of nuclear arms race and its subsequent effect on deterrence stability in South Asia. The paper examines the action-reaction spiral that characterises the nuclear arms competition. For theoretical explanations, the paper draws from the Realist framework in general and the Theory of Security Dilemma in particular to briefly trace the action-reaction dynamic or the security interdependence between India and Pakistan.

The Theory of Security Dilemma, originated by John Herz, holds that in the anarchic international environment, states are concerned about their security. They are driven to acquire more power in order to secure themselves. This, in turn, renders neighbours and adversaries more insecure and compels them to prepare for the worst. The vicious cycle of

security and power accumulation ensues.<sup>1</sup> In situations where security dilemma exists, security is viewed as a zero-sum game, resulting in greater instability as the opponent responds to the resulting reductions in security.<sup>2</sup> Barry Buzan calls this security dilemma a “power-security dilemma.”<sup>3</sup> Military build-ups and arms races are characteristics of security dilemma. The development of nuclear weapons and missiles is a manifestation of the security dilemma. Even deployment of defensive weaponry like missile defence contributes towards furthering the security dilemma among states.

Another factor complicating the security dynamics in South Asia is the presence of two dyads of security competitors. One is India and Pakistan while the other one is India and China. If China builds up arms or defence in order to secure itself against the US for example, it would be seen as threatening by India which might respond by adjusting its offensive or defensive capabilities. This, in turn, would threaten Pakistan which would respond by adjusting its posture and capabilities. Similarly, the Pakistan-China alliance threatens India, which may respond by yet further conventional buildup and nuclear developments. This has, often, been called a cascading effect.

There are several models that govern arms races. Dr. Naeem Salik describes three models: the action reaction model, the domestic structure model and the technological imperative model.<sup>4</sup> The domestic structure model comprises internal factors such as corporate interests of research and development organisation, inter-services rivalry and domestic politics. The technological imperative model holds that this is the single most important factor in driving nuclear arms races. The argument is that

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<sup>1</sup> John Herz, “Idealist Internationalism and the Security Dilemma,” *World Politics*, vol. 2 (1950).

<sup>2</sup> Robert Jervis, “Cooperation under the Security Dilemma,” *World Politics*, vol. 30, no. 2 (January 1978):169-70. Jervis also discusses security dilemma at length and also talks about the offence-defence balance in security dilemma, 187-90.

<sup>3</sup> Buzan’s notion of power-security dilemma comes from states’ constant struggle for power and security. Barry Buzan, *People, States and Fear: The National Security Problem in International Relations* (Chapel Hill, N.C.: University of North Carolina Press, 1983), 157.

<sup>4</sup> Naeem Salik, “Strategic Stability in South Asia: Challenges and Prospects,” Institute of Strategic Studies, *Islamabad Papers*, Nuclear Paper Series no.3 (February 2016).

the growing sophistication of weaponry and research technology is such that it drives arms races attributing its course and pace to the pull of technological advance rather than push of political initiative. This model is not that important in case of India and Pakistan because most research and development is done by state run entities. This also means that technology is mostly developed in response to threats and political initiative. In essence, it implies that arms race drives the technological developments rather than the other way around. However, more recently as research and development produces new weapons systems there is a push towards testing and inducting them. The most important model in case of India and Pakistan is the action-reaction model. This model postulates that states increase their armament quantitatively as well as qualitatively because of real or perceived threats from other states. South Asia nuclear and missile competition has especially been dominated by this model.

India and Pakistan provide a classic case of security dilemma. India is a much bigger country, with ambitions of regional and global dominance, and a publically stated threat perception from China, most of its military and nuclear posture is geared against Pakistan. Case in point is the adoption of the limited war doctrine, the Cold Start: development of short-range ballistic missile like Prahar, and the BMD system. Therefore, while India may not feel the security dilemma as severely as Pakistan does, most of its military and nuclear developments are Pakistan specific.<sup>5</sup>

The literature on the subject of South Asian security dilemma and nuclear arms race is scattered at large. While writers like Lowell Dittmer talk about the South Asian security dilemma, he refers to the introduction of nuclear weapons in the region and the implications of the strategic balance/imbalance.<sup>6</sup> There are authors that write about India's nuclear weapons and their implications.<sup>7</sup> There are also a number of writings on

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<sup>5</sup>Sumit Ganguly and S. Paul Kapur, *India, Pakistan, and the Bomb: Debating Nuclear Stability in South Asia* (New York: Columbia University Press, 2012), 3.

<sup>6</sup>Lowell Dittmer, "South Asia's Security Dilemma," *Asian Survey* 41, no. 6 (2001): 897-906; Lowell Dittmer, *South Asia's nuclear security dilemma : India, Pakistan, and China* / Lowell Dittmer, ed., M. E. Sharpe Armonk (N.Y 2005).

Karsten Frey, *India's nuclear bomb and national security* (London: Routledge, 2006); George Perkovich, *India's Nuclear Bomb: The Impact on Global Proliferation*, Berkeley, Calif.: University of California Press, 1999; Ashley J.

Pakistan's nuclear weapons and why the country was compelled to develop the weapons.<sup>8</sup> There are also a number of works on the individual developments like India's pursuit BMD and its implications,<sup>9</sup> India-US civil nuclear cooperation,<sup>10</sup> India's Cold Start doctrine and the introduction of TNW in the region.<sup>11</sup> These works refer to the security competition between India and Pakistan and the tendency to arms race in general terms. However, none of the works systematically traces the action-reaction pattern in South Asia that is integral to the nuclear arms race in the region. By developing a theoretical explanation of the nuclear arms race and systematically tracing the action-reaction dynamics, the paper seeks to make a unique contribution to the literature on South Asian nuclear dynamics.

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Tellis, *India's Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal*, Virginia: Rand, 2001.

<sup>8</sup> Naeem Salik, *The Genesis of South Asian Nuclear Deterrence: Pakistan's Perspective* (Karachi: Oxford University Press, 2009), Feroz Hassan Khan, *Eating Grass: The Making of the Pakistani Bomb* (Stanford, Stanford University Press, 2012).

<sup>9</sup> Ghazala Yasmin Jalil, "Indian Missile Defence Development: Implications for Deterrence Stability in South Asia," *Strategic Studies*, vol. 35, no. 2 (Summer 2015).

<sup>10</sup> Shahid Bukhari, "Indo-US Strategic Partnership and Pakistan's Security: A Theoretical Evaluation," *Strategic Studies*, vol. 35, no. 3 (Autumn 2015).

<sup>11</sup> Ghazala Yasmin Jalil, "Tactical Nuclear Weapons and Deterrence Stability in South Asia: Pakistan's Stabilisation-Destabilisation Dilemma," *Strategic Studies*, vol. 34, no. 1 (Spring 2014), Adil Sultan, "Pakistan's Emerging Nuclear Posture: Impact of Drivers and Technology on Nuclear Doctrine," *Strategic Studies*, vol. 31-32, no. 4 & 1 (Winter 2011 & Spring 2012):147-167; Zahir Kazmi, "SRBMs, Deterrence and Regional Stability in South Asia: A Case Study of Nasr and Prahaar," Institute of Regional Studies, Islamabad (October 2012): 6, [www.irs.org.pk/strategic/sps012.doc](http://www.irs.org.pk/strategic/sps012.doc); Zulfqar Khan, "Tactical Nuclear Weapons and Pakistan's Option of Offensive Deterrence," in *Nuclear Pakistan: Strategic Dimensions*, ed. Zulfqar Khan, (London: Oxford University Press, 2011): 25-26, Zafar Nawaz Jaspal, "Tactical Nuclear Weapons: Deterrence Stability between India and Pakistan," January 2012, Naval Postgraduate School, [http://www.nps.edu/Academics/Centers/CCC/PASCC/Publications/2012/2012\\_002\\_Jaspal.pdf](http://www.nps.edu/Academics/Centers/CCC/PASCC/Publications/2012/2012_002_Jaspal.pdf); Brig (R) Naeem Salik, "Tactical Nuclear Weapons and Deterrence Stability" (Naval Postgraduate School), [www.nps.edu/Academics/Centers/CCC/PASCC/Publications/2012/2012\\_002\\_Salik.pdf](http://www.nps.edu/Academics/Centers/CCC/PASCC/Publications/2012/2012_002_Salik.pdf); Walter Ladwig, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security* 32, no. 3 (Winter 2007/08):165.

## Security Competition

This section uses the neorealist framework, in general, and the theory of security dilemma, in particular, to briefly trace the action-reaction dynamic or the security interdependence between India and Pakistan. The nuclear, missile and conventional competition between India and Pakistan is already well documented so the paper will briefly touch these issues. However, the section focuses on the developments in the last decade that heightened Pakistan's threat perceptions and led it to develop TNW and make qualitative and quantitative adjustments to its nuclear forces and posture—India's development of ballistic missile defence, Indo-US Civil Nuclear Deal, and most importantly, India's pursuit of the limited war doctrine—Cold Start. It hypothesises that the more acutely a security dilemma is felt the more likelihood of state B developing weapons systems, adopting doctrines, in reaction to state A.

The neorealist paradigm postulates that states exist in an anarchic international system where each state is responsible for its own security. It is a self-help system where each state prepares for its own defence.<sup>12</sup> States respond against threats from other states by internal and external balancing. Internal balancing means states build up economically and militarily in order to counter threat from other states. External balancing consists of forming alliances to counter or balance against threats.<sup>13</sup>

Pakistan has relied on a combination of internal and external balancing in order to counter its main security threat — India. Ever since its independence in 1947, Pakistan has tried to build up its conventional forces. It also took the path to nuclear weapons development as a force equaliser against a much bigger and militarily superior India. The reliance on alliances has also been the bedrock of the country's foreign policy. Pakistan has primarily relied on alliances with the US, China and Saudi Arabia since its independence.

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<sup>12</sup> Kenneth N. Waltz, *Theory of International Politics* (Massachusetts: Addison-Wesley Publishing Company, 1979).

<sup>13</sup> John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001) and Scot D. Sagan, "The Origins of Military Doctrine and Command and Control Systems," in Peter Lavoy, Scot Sagan, and James Wirtz, eds., *Planning the Unthinkable* (New York: Cornell University Press, 2000), 16-46.

### *Nuclear Weapons Development*

In the late 1960s and early 1970s, the Pakistani leadership had realised the trajectory of the Indian nuclear programme. Pakistan was spurred on by India's 1974 "peaceful nuclear explosion," and embarked upon a nuclear weapons programme of its own. Zulfikar Ali Bhutto, the President of Pakistan at the time, famously declared: "We are fighting a thousand years war with India, and we will make an atomic bomb even if we have to eat grass."<sup>14</sup> While India's nuclear programme may have been powered by a security threat from China or great power ambitions, Pakistan's nuclear weapons programme was purely security-driven and India-centric. India overtly tested its nuclear weapon in May 1998 and Pakistan followed with its own tests following threatening statements from the Indian leadership.<sup>15</sup> The pattern of enmity and security interdependence is apparent in the development of nuclear weapons by India and Pakistan.

Pakistan's alliances did not provide the security it sought. A prime example was the Indo-Pakistan War of 1965, whereby the US did not provide Pakistan with military support as it expected. This generated a widespread feeling in Pakistan that the US was not a reliable ally. Failure of external balancing was thus a major reason for Pakistan to pursue nuclear deterrence. Another reason was the growing conventional asymmetry with India. Over the years, Pakistan has tried to keep a conventional balance with India that denies it a decisive victory. According to one expert, Pakistan's conventional balance with India is 1:3 in military, 1:4.7 in Navy and 1:3.7 in Air force.<sup>16</sup> This huge asymmetry is the reason why Pakistan has come to rely more and more on nuclear deterrence over the years. Pakistan sees its nuclear weapons

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<sup>14</sup> Feroz Hassan Khan, *Eating Grass: The Making of the Pakistani Bomb* (Stanford, Stanford University Press, 2012), 87.

<sup>15</sup> Indian nuclear tests were followed by threatening statements from the Indian Home Minister and the leadership of the ruling Bharatiya Janata Party (BJP). Despite pressure by the international community not to test, Pakistan decided to make its nuclear weapons capability overt and responded by conducting its own tests on 28 and 30 of May 1998.

<sup>16</sup> Interview with Maria Sultan, Director General, South Asian Strategic Stability Institute (SASSI) on December 5, 2013. The author conducted the interview for a previous research work.

as a counterbalance to India's conventional superiority since it cannot hope to keep up with India's conventional arms build up.

### *Development of Ballistic Missiles*

The security competition also manifests itself in the race for development and acquisition of delivery systems. India has a nuclear doctrine that envisages a triad of nuclear forces. Therefore, India has developed such ballistic missiles as based in land, air and sea. Pakistan has also developed land and air delivery systems, and in recent years has made tremendous strides in developing sea-based delivery systems. India aims to develop second strike capability in order to assure deterrence.<sup>17</sup> Pakistan, ideally, also has the goal to develop second strike capability but it is constrained by limited resources in comparison to its larger neighbour, India. However, Pakistan's test of Babur 3, a Submarine-Launched Cruise Missile (SLCM) in January 2017, is evidence that Islamabad is also aiming for second strike capability.<sup>18</sup> Overall, in ballistic missile development, India has taken the lead with Pakistan following closely.<sup>19</sup> Rodney Jones aptly sums it up: "As with nuclear weapons capabilities, India has set the pace in acquisition of missile delivery capabilities on the subcontinent."<sup>20</sup> This implies that Pakistan is

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<sup>17</sup> The Indian Navy is developing three to six indigenous Arihant class nuclear ballistic missile submarines (SSBN), one has already been commissioned. Six indigenous nuclear attack submarines (SSN) are also planned, and India has been negotiating with Russia to lease a second Akula class attack submarine. It has also developed nuclear-capable submarine-launched ballistic missiles (SLBM), land-attack cruise missiles, and a submarine-launched supersonic missile that modifies its *Brahmos* cruise missile.

<sup>18</sup> "Pakistan Attains second strike capability with test fire of submarine-launched cruise missile," *Dawn*, January 11, 2017.

<sup>19</sup> In 1983 India launched an ambitious Integrated Guided Missile Development Programme (IGMDP) with the objective of developing five missile systems – Nag, Trishul, Akash, Prithvi and Agni. This was about the same time, in late 1980s, that Pakistan started its missile programme. India had Prithvi I operational in the 1990s with Prithvi II, Agni I, Agni II and Agni III operational at present. In comparison, Pakistan has inducted Hatf 3, Hatf-4 and Hatf-5 in the Army in 2003-4. The rest of the missiles are under development. India is also developing sea-based ballistic missiles – Dhanush and Sagarika (K-15) – which are very close to being operational.

<sup>20</sup> Rodney W. Jones, "Pakistan's Nuclear Posture: Quest for Assured Nuclear Deterrence – A Conjecture," *Institute of Regional Studies, Islamabad, Spotlight on Regional Affairs*, vol. XIX, no. 1, January 2000, 10.

always trying to react or “catch up” to India’s developments. Although Pakistan claims that it does not intend to match India missile for missile, nor does it want to pursue a nuclear arms race with India. However, the threat Pakistan perceives from India is the biggest factor driving the development of its missile and nuclear programmes. While Pakistan does not wish to engage in an arms race with India, it must maintain Credible Minimum Deterrence.

**Table No.1**  
**Indian Nuclear Capable Missiles**

Type	Range (km)	Payload	Status
<b>Land based Ballistic Missiles</b>			
Prahaar	150	200	Tested, conventional and nuclear capable.
Prithvi I/II	150/350	800/500	Prithvi I reportedly nuclear capable, in service since 1994. Prithvi II reportedly nuclear capable, deployed
Agni I	700	1000	Deployed with Indian Army’s 334 Missile Group
Agni II	2000	1000	Deployed with Army’s 555 Missile Group
Agni III	3000	1500	Inducted into service but not fully operational.
Agni IV	4000	1000	Tested
Agni V	>5000	1000?	Tested
<b>Sea based Missiles</b>			
Dhanush	350	500	Induction under way, last tested in November 2015
K-15 (Sagarika)	700	500-600	Tested November 2015 from submarine INS Arihant. Under production
K-4	3000		Last Tested in April 2016

*Source: SIPRI Yearbook 2015, Armaments, Disarmaments and International security (Oxford University Press, 2015), p. 498.*

**Table No. 2**  
**Pakistan's Nuclear Capable Missiles**

Type	Range (km)	Payload	Status
<b>Land Based ballistic Missiles</b>			
Abdali (Hatf-2)	180	200-400	Under development, test launched on 5 and 11 Mar, 2002
Ghaznavi (Hatf-3)	290	500	Entered service with Army in 2004
Shaheen I (Hatf-4)	650	750-1000	Entered service with Army in 2003
Ghauri (Hatf-5)	>1200	700-1000	Entered service with Army in 2004
Shaheen II (Hatf-6)	2500	1000	Under development, last tested Apr 21, 2008
Nasr (Hatf-9)	60		Under development, last test May 29, 2012
<b>Cruise Missiles</b>			
Babur (Hatf-7)	600	400-500	Under development. Tested on Sep 17, 2012, initially land based but reportedly air and sea based versions under development
Ra'ad (Hatf-8)	350		Under development, air launched, last test May 31, 2012
Babur 3	450		Tested January 2017, its first Sabmarine launched Cruise Missile (SLCM) <sup>21</sup>

**Source:** SIPRI Yearbook 2015, Armaments, Disarmaments and International security (Oxford University Press, 2015), p. 504.

<sup>21</sup>“Pakistan Attains second strike capability with test fire of submarine-launched cruise missile,” *Dawn*, January 11, 2017.

### *India-US Nuclear Cooperation*

Another development that has heightened Pakistan's threat perceptions vis-à-vis India is the India-US nuclear cooperation. This is an important linkage in the action-reaction chain that is driving the South Asian security dilemma. Under the 2005 Indo-US Civil Nuclear deal, India agreed to place all its civil nuclear facilities under International Atomic Energy Agency (IAEA) safeguards<sup>22</sup> in return for supply of civilian nuclear technology and fuel and a waiver from the Nuclear Supplier Group (NSG).<sup>23</sup> The deal opens the path for India to freely indulge in civil nuclear trade with the US and rest of the world. The civil nuclear cooperation presented a number of issues for Pakistan and heightened the latter's threat perceptions. Firstly, the fact that India was singled out for civil nuclear cooperation while Pakistan remained banned from such trade by the NSG<sup>24</sup> meant that India was being awarded a special status by the US. Secondly, Pakistan's main problem with the nuclear deal is that it frees up India's indigenous enriched uranium and plutonium resources for use in its nuclear weapon programme. This effectively means that India can run its civil nuclear programme from imported nuclear fuel and would be in a position to make more nuclear warheads using all of its indigenous fissile material. This directly affects Pakistan's security. Maleeha Lodhi, the former Ambassador to the US, aptly sums up Pakistan's concerns with the Indo-US nuclear deal:

“These actions significantly enhanced India's ability to expand its strategic arsenal and capabilities and accelerated its quest for ways to overcome the strategic deterrence established after 1998. India was enabled to increase its fissile material stocks qualitatively and quantitatively. This reshaped Pakistan's threat perceptions and determined its position on Fissile Material Cut-Off Treaty (FMCT) negotiations in the Geneva based Conference on Disarmament.”<sup>25</sup> The

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<sup>22</sup> “Joint Statement Between President George W. Bush and Prime Minister Manmohan Singh,” July 18, 2005, <http://georgewbush-whitehouse.archives.gov/news/releases/2005/07/20050718-6.html>

<sup>23</sup> In 2008, the NSG agreed to grant India a waiver from its existing rules, which forbid nuclear trade with a country which has not signed the Nuclear Non-Proliferation Treaty (NPT).

<sup>24</sup> Nuclear weapon states that are outside the NPT were banned from doing any nuclear trade with the rest of the world.

<sup>25</sup> Maleeha Lodhi, “Pakistan's nuclear compulsions,” *News*, November 6, 2012.

deal has resulted in Pakistan's growing concerns with its own fissile material stocks and the inevitable warhead asymmetry with India.

Pakistan has reacted in a number of ways. Firstly, it guides Pakistan's position on negotiating the FMCT. Pakistan has advocated for the negotiation of a treaty that deals with the issue of asymmetry of existing fissile material stocks not just cut-off of future fissile material production. Secondly, Pakistan has speeded up production of fissile material. It already has two plutonium producing reactors operational at Khushab,<sup>26</sup> a third one became operational in 2010 while a fourth one is also reportedly operational.<sup>27</sup> This leads to the third point — the natural conclusion is that Pakistan has speeded up production of nuclear warheads. Even according to conservative estimates Pakistan's nuclear arsenal has at least tripled in a decade.<sup>28</sup> The Indo-US nuclear deal is at least partially responsible for Pakistan's speeding up of its stockpile of fissile material. Although it is not directly responsible for Pakistan's development of TNW, it has contributed to heightening Pakistan's threat perceptions vis-a-vis India and has exacerbated the security dilemma for Pakistan.

### *Indian Development of Ballistic Missile Defence and Pakistan's Policy Options*

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<sup>26</sup> Naeem Salik, *The Genesis of South Asian Nuclear Deterrence: Pakistan's Perspective* (New York: Oxford University Press, 2009), 301.

<sup>27</sup> David Albright and Robert Avagyan, "Construction Progressing Rapidly on the Fourth Heavy Water Reactor at the Khushab Nuclear Site," Institute for Science and International Security, May 21, 2012, <http://isis-online.org/isis-reports/detail/construction-progressing-rapidly-on-the-fourth-heavy-water-reactor-at-the-k/12>, David Albright and Serena Kelleher-Vergantini, "Pakistan's fourth Reactor at Khushab now Seems Operational," January 16, 2015, <http://isis-online.org/isis-reports/detail/pakistans-fourth-reactor-at-khushab-now-appears-operational/12>

<sup>28</sup> At the turn of the century Pakistan had an estimated 25 warheads while India was capable of producing anywhere from 90-180 warheads. Therefore, a conservative estimate put the warhead ratio between India and Pakistan to 4:1 and possibly as high as 8:1. However, a decade later these estimates vary from 70-110 for Pakistan and 90-168 for India. This puts the ratio almost 1:1 for India and Pakistan and possibly 2:1.

India is also developing a Ballistic Missile Defence (BMD) since 1990s. It is composed of two-tier systems designed to destroy an incoming ballistic missile – the Prithvi Air Defence (PAD) for high altitude interception and Advanced Air Defence (AAD) missile for low altitude interception.<sup>29</sup> The PAD can intercept missiles at altitudes between 50km-80km and the AAD missile destroys them at altitudes of 15km-30km. PAD is essentially mid-course interception while AAD is terminal phase interception. The system was planned in two phases of which PAD and AAD represent the first phase. Chief of Indian Defence Research and Development Organization (DRDO), V.K. Saraswat announced the competition of phase I in 2012 and claimed that the system was ready to protect two Indian cities.<sup>30</sup> In the second phase, the DRDO plans to develop two ballistic missiles, the AD-1 and AD-2 which would reportedly be able to intercept IRBMs and ICBMs.<sup>31</sup> The BMD systems rely on the swordfish radar system for tracking and guidance which is an acknowledged derivative of Israeli Green Pine radars which is a component of Israeli Arrow 2 BMD system.<sup>32</sup> The radar is capable of tracking over 200 objects at a range of 600-800 km simultaneously with plans to extend the range to 1500km. This would mean that the radars would be able to detect objects and missiles within almost the entire territory of Pakistan.

India's BMD has developed rapidly in the last decade or so which is aimed at countering short and medium range ballistic missiles initially, with plans to protect two Indian cities, and in the longer run plans to protect against incoming IRBMs and ICBMs. Its indigenous system, once effective and deployed is capable of countering Pakistan's Hatf, Ghauri and Shaheen ballistic missiles. As India's BMD system develops and becomes more extensive and effective it will impact Pakistan's nuclear deterrent.<sup>33</sup> This has heightened Pakistan's threat perceptions.

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<sup>29</sup> Eric Auner, "Indian Missile Defence Program Advances," *Arms Control Today* January/February 2013.

<sup>30</sup> "Missile Defence Shield Ready: DRDO chief," *Hindu*, May 6, 2012.

<sup>31</sup> "DRDO Ballistic Missile Defence System, India," <http://www.army-technology.com/projects/drdo-bmd/>

<sup>32</sup> Eric Auner, "Indian Missile Defence Program Advances."

<sup>33</sup> Ghazala Yasmin Jalil, "Indian Missile Defence Development: Implications for Deterrence Stability in South Asia," *Strategic Studies*, vol. 35, no. 2 (Summer 2015): 35.

Pakistan sees India's missile defence plans with concern and as destabilising for deterrence. Presently, India claims that its BMD provides limited protection, but it has extensive plans for future. Even a partial BMD would make deterrence null and void since the very notion of deterrence works on mutual vulnerability to attack from each other. With a missile defence system in place, India would be confident in launching a nuclear attack without the fear of reprisal. Even if the Indian BMD is far from invulnerable, it would create a false sense of security in the minds of Indian decision makers, which can potentially make them act with aggression in a crisis. The Pakistani foreign office has voiced concerns that it considers India's on-going efforts to build ballistic missile system as a destabilising development. Foreign Office Spokesman, Aizaz Ahmad Chaudhry, said that Pakistan has constantly drawn attention of the Indian Government to this issue through Composite Dialogue process.<sup>34</sup> However, Pakistan's concerns have not met with a favourable response from India.

Pakistan has tried to counterbalance the threat from Indian BMD diversifying its delivery systems, and their accuracy, and is developing cruise missiles in order to defeat and saturate a limited system like India's. Islamabad's development of TNW is also partially in response to India's missile defence plans. The Foreign Office Spokesperson's comments endorse this: "Pakistan's short range missiles...are meant to address three major concerns emanating from India. These include increasing conventional weapons asymmetry; India's offensive doctrine and development of ballistic missile system...development of Nasr and Cruise missiles by Pakistan should be seen in this context."<sup>35</sup> This statement indicates that development of TNW and cruise missiles is in response to the threat emanating from India. It is also evidence of the security interdependence between India and Pakistan. When India develops major weapons or defensive systems, it heightens Pakistan's threat perception. It consequently reacts in a way to decrease in its security by developing and diversifying weapons systems of its own. It thus perpetuates and fuels the arms racing between the South Asian rivals.

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<sup>34</sup> "Pakistan considers India's ballistic missile system as destabilizing development: FO," *Nation*, May 9, 2013.

<sup>35</sup> *Ibid.*

### *India's Cold Start Doctrine*

Cold Start is yet another chain in the action-reaction pattern of security interdependence between India and Pakistan. India revealed its Cold Start Doctrine in April 2004. It presents a break from the defensive doctrine India employed since 1947.<sup>36</sup> The Cold Start Doctrine is essentially based on the concept of pre-emption and envisages reorganising Indian Army's offensive power from three large strike corps into eight smaller Integrated Battle Groups (IBGs) comprising of elements of Army, Air force and, if required, Navy. These IBGs would be prepared to launch multiple strikes into Pakistan along its border to destroy its offensive and defensive corps. The emphasis of this new limited war-fighting doctrine is on the speed of deployment and operations. Its goal is to establish a capability to launch a retaliatory conventional strike against Pakistan before international community can intervene and also fight conventional limited war below Pakistan's nuclear threshold.<sup>37</sup> The doctrine was developed after the failure of Operation Parakram in the wake of 2001 terrorist attacks on Indian Parliament for which India blamed Pakistan-based terrorist groups. It took Indian forces more than three weeks to mobilise and get to the border which gave Pakistan enough time to counter-mobilise and get the US to intervene. The new doctrine envisages mobilisation in as little as 48 hours.

The objective behind the Cold Start may be to counter Kargil-like episodes and retaliate against the proxy war in Kashmir. India believes terror attacks in India are proxies of Pakistan state policy and that it must respond conventionally to punish Pakistan. Cold Start aims to provide more policy options to Indian political leadership between doing nothing, and provoking a full-scale war or crossing the nuclear threshold. The Indian analyst comments, "The Cold Start Doctrine seeks to call Pakistan's nuclear bluff with limited offensive. Its tactical objective may be rapid shallow invasion, destroying terrorist infrastructure of Pakistan military assets or hot pursuit of militants. Its strategic objectives may be

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<sup>36</sup>Sundarji doctrine was operational since 1981 which consisted of seven defensive 'holding corps' meant to check Pakistan's advance into Indian territory and three strike corps. The doctrine operational since 1947-1981 was also a defensive one.

<sup>37</sup>Walter Ladwig, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security*, vol. 32, no. 3 (Winter 2007/08): 165.

getting India out of its post-1998 ‘strategic box’ of being unable to act against Pakistani proxy war in Kashmir due to its nuclear deterrent.”<sup>38</sup> Indian Army Chief, General Deepak Kapoor’s remarks endorse this: “The possibility of limited war under a nuclear overhang is still a reality in South Asia.”<sup>39</sup> It is also India’s response to Kargil where Pakistan initiated and fought a limited war that Delhi did not see coming. According to one Pakistani analyst, “It is meant to deter not just Kargil but Mumbai as well.”<sup>40</sup> The notion of the Cold Start started to take shape post Kargil war. In this sense the doctrine is faulty since Kargil was confined to a limited area and Cold Start envisages crossing the international border at multiple points if necessary. India also runs into a dilemma of escalation control and crosses the nuclear threshold that is not clearly defined in case of Pakistan. The very notion of a limited war is faulty in the context of India and Pakistan. Once a war starts, it may quickly cross the nuclear threshold. Development of limited war doctrines is, thus, too dangerous in a nuclear environment.

The doctrine has, in turn, heightened Pakistan’s threat perceptions. A number of statements at the official level indicate Pakistan’s heightened threat perceptions and its resolve to respond to it. The Nuclear Command Authority (NCA) took note of destabilising developments in January 2010, “India continues to pursue an ambitious militarisation programme and offensive military doctrines. Massive inductions of advanced weapon systems, including installation of ABMs, build-up of nuclear arsenal and delivery systems through ongoing and new programmes, assisted by some external quarters, offensive doctrines like the Cold Start and similar accumulations in the conventional realm, tend to destabilise

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<sup>38</sup> P. R. Chari, “Limited War Under the Nuclear Shadow in South Asia,” in Arzan Tarapore, Report of the seminar presenting key findings of the USIP report held on January 19, 2005 at the IPCS conference room, Military Articles No. 1623, *Institute of Peace & Conflict Studies*, January, 29, 2005, <http://www.ipcs.org/article/military/limited-war-under-the-nuclea-shadow-in-south-asia-1623.html>

<sup>39</sup> “Possibility of Limited War in South Asia: Indian Army Chief,” *News*, November 24, 2009.

<sup>40</sup> Noman Sattar “Cold Start Doctrine and National Response,” Paper presented at the workshop titled “Indian Military’s Cold Start Doctrine and its Implications for Strategic Stability in South Asia,” July 20-22, 2010, <http://www.sassi.org/wp-content/uploads/2012/05/Conference-Report.pdf>

the regional balance.”<sup>41</sup> The former Chief of Army Staff (COAS), General Ashfaq Pervez Kayani in January 2010 warned that:

Proponents of conventional application of military forces, in a nuclear overhang are chartering an adventurous and dangerous path; the consequences of which could be both unintended and uncontrollable...as a responsible nuclear capable state (Pakistan) will continue to maintain the necessary wherewithal to deter and, if required, defeat any aggressive design, in any form or shape i.e., a firmed up proactive strategy or a cold start doctrine.<sup>42</sup>

Similarly, the then Chairman Joint Chief of Staff Committee (CJCSC) General Tariq Majid in June 2010 stated that, “Growing power imbalance due to continuing build-up of massive military machine, including both hi-tech conventional and nuclear forces, adoption of dangerous cold start doctrine and proactive strategy are all destabilising trends, carrying implications for Pakistan’s security”.<sup>43</sup>

This demonstrates the extent of Pakistan’s concerns with the Cold Start Doctrine and its resolve to counter its destabilising effects.

Pakistan has responded by conducting several military exercises and war-games designed to counter the Cold Start style offensives. The Pakistan Army reportedly adopted a new concept of war-fighting aimed at pre-empting India’s Cold Start doctrine. The new concept is aimed at improving mobilisation time and to put up a joint Army, Navy and Air Force response to a conventional threat.<sup>44</sup> Secondly, Pakistan has developed low-yield nuclear weapons in order to readdress the instability introduced by the Cold Start.

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<sup>41</sup> ISPR press release No PR11/2010-ISPR, January 13, 2010, [http://www.ispr.gov.pk/front/main.asp?o=t-press\\_release&date=2010/1/13](http://www.ispr.gov.pk/front/main.asp?o=t-press_release&date=2010/1/13)

<sup>42</sup> ISPR Press Release No PR2/2010-ISPR, January 1, 2010, [http://www.ispr.gov.pk/front/main.asp?o=t-press\\_release&id=1082](http://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=1082)

<sup>43</sup> ISPR Press Release PR235/2010-ISPR, June 1, 2010, [http://www.ispr.gov.pk/front/main.asp?o=t-press\\_release&date=2010/6/17](http://www.ispr.gov.pk/front/main.asp?o=t-press_release&date=2010/6/17).

<sup>44</sup> “Pakistan Army to Preempt India’s Cold Start Doctrine,” *Express Tribune*, June 16, 2013.

Cold Start Doctrine and introduction of low-yield nuclear weapons are the latest developments in the action-reaction pattern that is a manifestation of the security dilemma. Cold Start is an aggressive doctrine that heightens Pakistan's threat perceptions, leaving it to adjust its conventional doctrine and force posture as well as developing TNW to deter India's aggressive limited war plans. The next section discusses TNW in more detail.

### *Pakistan's Tactical Nuclear Weapons*

Pakistan first tested its short range missile Nasr (Hatf IX) on April 19, 2011. The ISPR termed it "a short range surface to surface multi tube ballistic missile...with a range of 60 km, carried nuclear warheads of appropriate yield with high accuracy, shoot and scoot attributes."<sup>45</sup> The official statement said that the missile has been developed to add deterrence value to Pakistan's strategic weapons development programme at short ranges. The missile addressed the "need to deter evolving threat." This statement implies that NASR was developed in response to a comparatively recent threat, specifically the Cold Start Doctrine as well as the mounting conventional asymmetry between India and Pakistan.

After the 2013 test of Nasr, the official statement said that it has been specially designed to defeat all known Anti-Tactical Missile Defense Systems.<sup>46</sup> This is a clear indication that interception by a missile defence system is also a concern on the part of Pakistan. If Nasr does indeed possess the ability to defeat missile defence systems, it would greatly improve the credibility of the weapon.

As far as Pakistan is concerned, TNW readdress the insecurity introduced by Indian Cold Start Doctrine. Feroz Khan quotes Pakistan's security managers expressing the rationale for TNW, "Nasr, therefore, restores 'the strategic balance by closing the gap at the operational and tactical level'...So in their assessment 'Nasr pours cold water to Cold Start...thus this is a weapon of peace. It restores the balance; it should convince India to think long before deciding to attack.'"<sup>47</sup> Pakistan

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<sup>45</sup>ISPR press release No. PR94/2011-ISPR Rawalpindi, April 19, 2011.

<sup>46</sup> ISPR press release No. PR17/2013-ISPR Rawalpindi, February 11, 2013.

<sup>47</sup>Feroz Hassan Khan, *Eating Grass: The Making of the Pakistani Bomb*, 396.

further claims that it is a purely defensive weapon meant to strengthen conventional deterrence and deter the attacking forces at the tactical level. The security planners claim that the country has no plans for moving towards battlefield weapons.<sup>48</sup>

At the same time, India is unhappy with Pakistan's development of TNW and the potential for the weapons to neutralise its limited war doctrine. India has also been simultaneously developing TNW of its own. India followed with the test of its tactical surface to surface missile, Prahaar, just two months after the first test of Nasr.<sup>49</sup> The official statement claimed that it is capable of carrying different types of warheads, and will operate as battlefield support system for the Indian army. The missile has a 150 km range and 200 kg payload. It is launched from a road mobile system, which can carry six missiles at a time and fire them in different directions.<sup>50</sup> The DRDO further claimed that the missile has high manoeuvrability, very high acceleration and excellent impact accuracy.<sup>51</sup> Although India tested only two months after the Nasr but the DRDO had been developing it for at least two years. It is supposed to fill the gap between the 90 km-range of the Smerch multi-barrel rocket launchers and guided missiles like 'Prithvi' with 250-350 km.<sup>52</sup>

This section has effectively demonstrated that India and Pakistan are embroiled in a security competition that shapes the strategic environment of South Asia as well as drives their nuclear and conventional

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<sup>48</sup> Ibid.

<sup>49</sup> It must be noted that India's development of Prahaar is not in response to Pakistan's Nasr. India was already working on development of the missile and just chose to test it after Pakistan tested Nasr. With Prahaar, India is planning to replace its 150 km-range Prithvi ballistic missiles with the newly developed quick reaction Prahar missiles, which are more capable and have more accuracy.

<sup>50</sup> "Prahaar Hits the Target," *DRDO Newsletter*, vol. 31, no. 8, August 2011, [http://drdo.gov.in/drdo/pub/nl/2011/NL\\_Aug\\_web\\_25\\_8.pdf](http://drdo.gov.in/drdo/pub/nl/2011/NL_Aug_web_25_8.pdf)

<sup>51</sup> Subramanian Y. Mallikarjun "Prahaar missile successfully test fired," *Hindu*, July 22, 2011, <http://www.thehindu.com/news/national/prahaar-missile-successfully-testfired/article2279166.ece>

<sup>52</sup> Prithvi missiles to be replaced by more-capable Prahar: DRDO," *Hindu Business Line*, June 30, 2013 <http://www.thehindubusinessline.com/news/prithvi-missiles-to-be-replaced-by-morecapable-prahar-drdo/article4866081.ece>

programmes. It has examined the security interdependence between India and Pakistan that is characteristic of security dilemma. India is an emerging regional power with ambitions of a regional and global power that reflects in its nuclear and conventional programmes. Pakistan has a purely defensive security policy that is India centric. Therefore, the latter constantly tries to maintain a strategic balance in both the conventional as well as nuclear realm. In the last decade or so, rapid chain of events from the India-US nuclear deal, India's conventional build-ups, its pursuit of Cold Start doctrine, to the development of ballistic missile defence, have all succeeded in exacerbating Pakistan's security dilemma. This has elicited response from Pakistan in terms of greater number of nuclear warheads, doctrinal change in order to counter the Cold Start and development of TNW, thereby, reinforcing the action reaction pattern between the two South Asian rivals.

### **Effect on Strategic Stability**

This section looks at the instability introduced by the weapons systems themselves as well as the overall instability that the action-reaction spiral and the security dilemma cause.

An Indian BMD affects the credibility of Pakistan's nuclear deterrent and is, therefore, destabilising for deterrence in South Asia. The notion of nuclear deterrence rests on mutual vulnerability of both sides to attack. In theory, India becomes invulnerable to Pakistani ballistic missile attack by developing and deploying a missile defence system. On the other hand, with a missile defence system in place, India would be more confident in launching a nuclear attack without the fear of reprisal. A South Asian expert argues, "Possession of BMD increases the effective resolve of India. In any crisis between India and Pakistan, India would be willing to take greater risks of being attacked in order to prevail knowing that if events lead to a nuclear exchange, it would be protected by BMD. Indeed the better India BMD would work, the more resolute it would become. In fact, as the BMD becomes more effective India's threshold of attack on Pakistan would decrease, resulting in greater likelihood of attack and intervention. In essence, this would mean that Pakistan would have to back down in most crises. It also leaves Pakistan open to an attack by India. This erodes the credibility of

Pakistan's nuclear deterrent, and makes it vulnerable to coercion and intervention."<sup>53</sup> It is also destabilising for deterrence in South Asia.

The introduction of Cold Start Doctrine is also destabilising for South Asian nuclear deterrence since it is one of the major reason Pakistan pursued TNW. TNW readdress the insecurity introduced by the Indian Cold Start doctrine. Brig. (R) Feroz Khan quotes the rationale of Pakistan's security managers: "Nasr, therefore, restores 'the strategic balance by closing the gap at the operational and tactical level'...So in their assessment 'Nasr pours cold water to Cold Start...thus this is a weapon of peace. It restores the balance; it should convince India to think long before deciding to attack.'"<sup>54</sup> As far as Pakistan is concerned, Nasr is a purely defensive weapon meant to strengthen conventional deterrence and deter the attacking forces at the tactical level.

However, the introduction of TNW in South Asia has complex dynamics. Pakistan faces a dilemma of deterrence stability. Pakistan has demonstrated the TNW capability and communicated its intent, so from Islamabad's perspective it should stabilise deterrence. However, the deterrence stability holds until the weapons are deployed for large-scale battlefield war-fighting. One expert aptly describes the deterrence stability dilemma: "The pursuit of TNW presents a stabilisation-destabilisation dilemma for Pakistan. While demonstration of TNW capability may be stabilising for Pakistan, since it aims to deter India from pursuing limited war, the actual deployment and use of the weapons in the battlefield is destabilising, since it presents a host of problems such as dangers of pre-emption, complicated command and control, risk of advertent and inadvertent use, and issues of escalation control, which make deterrence highly unstable."<sup>55</sup> In a theatre like South Asia, the distinction between tactical and strategic nuclear weapons loses its significance. Once, the first nuclear shot is fired there could be a quick escalation to an all-out nuclear conflict. Therefore, deploying large-scale battlefield nuclear weapons and war-fighting

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<sup>53</sup> Ghazala Yasmin Jalil, "Indian Missile Defence Development: Implications for Deterrence Stability in South Asia."

<sup>54</sup> Feroz Hassan Khan, *Eating Grass: The Making of the Pakistani Bomb*, 396.

<sup>55</sup> Ghazala Yasmin Jalil, "Tactical nuclear Weapons and Deterrence Stability in South Asia: Pakistan's stabilization-destabilization dilemma," *Strategic Studies*, vol. 34, no. 1 (Spring 2014).

doctrines are destabilising in a theatre like South Asia. Moreover, the lessons of the Cold War, where the two super powers deployed several thousand TNW, suggests that they do not belong to the modern battlefield.

The action-reaction spiral that characterises India and Pakistan's security relations is damaging for deterrence and for strategic stability of the region. Introduction of systems like the BMD, TNW, and aggressive limited war doctrines has the overall effect of lowering the nuclear threshold, especially in the case of Pakistan. In the case of TNW, which are meant for battlefield war-fighting, their use is envisaged to stop the advance of enemy's conventional forces even in a limited war scenario. As far as Pakistan is concerned, it sees these weapons as bolstering its conventional capability. However, India has indicated that even firing of low yield weapon would be considered as firing the first nuclear shot and it would retaliate massively. In South Asia where the two nuclear armed states border each other, where tensions often run high, where disputes like Kashmir have festered relations for over half a century, it is highly destabilising to introduce aggressive doctrines, new weapons systems, conventional build-ups and systems like the BMD. Even a small provocation has the potential to turn into an all-out nuclear war.

Besides the direct effects of the nuclear and conventional arms races, it has other indirect effects on strategic stability. A focus on nuclear and conventional arms build-up keeps the two countries' focused on military threats. As the same time, the money, spent on defence means lessens resources for development and poverty alleviation. South Asia is one of the poorest regions. India alone has over 20 per cent of the world's poor.<sup>56</sup> It also means a slower economic growth for the two countries.

### **How to Mitigate the Security Competition**

A change in the strategic culture of the subcontinent is needed. Pakistan has to get out of the purely India centric security framework in the sense that it cannot engage in an arms race with India. It cannot afford to match weapon for weapons in the conventional or the nuclear realm. India is a much bigger country with a huge economy and a defence

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<sup>56</sup>Max Roser and Esteban Ortiz-Ospina "World Poverty 2016",  
<https://ourworldindata.org/world-poverty/>

budget several times more than that of Pakistan's. Pakistan needs to have a nuclear deterrent that is sufficient to deter India and safeguard its sovereignty, it does not need to counter each weapon India develops or else it may risk collapse of the state.

Similarly, India needs to ease up on its conventional buildup, rapid development of nuclear and ballistic missile programmes that are seen as a threat in Islamabad. It needs to stop pursuing aggressive limited war doctrines like the Cold Start that may lead to unimaginable disaster in a nuclear environment like South Asia. India needs to stop its propaganda of trying to brand Pakistan as a state sponsor of terrorism in national and international fora.

The two countries need to ease tensions and work on improving relations. The composite dialogue process that started in 2004 has been suspended since the 2008 Mumbai Incident. The two countries need to revive the dialogue process in order to ease tensions and move towards conflict resolution in the long run.

The two countries need to draw strategic-restraint architecture. Over the years, India has rejected Pakistan's proposals for a strategic-restraint regime. However, at the same time, it has failed to come up with an alternative proposal. The two countries need to institutionalise crisis management structures.

India and Pakistan already have some confidence building measures (CBMs). They need to further expand them. The two countries regularly exchange lists of their nuclear installations and signed agreement for not attacking each other's nuclear installations. They also have an agreement on pre-notification of ballistic missiles tests. In addition, some CBMs the two sides can work on are in the realm of:

- Negotiations for an Anti-Ballistic Missile Treaty for South Asia in order to limit the development and deployment of BMD systems.
- Agreement for pre-notification of cruise missile flight tests.
- Agreement on avoidance of incidents at sea.
- Negotiate on developing and overarching strategic restraint regime.<sup>57</sup>

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<sup>57</sup> Naeem Salik, *Strategic Stability in South Asia: Challenges and Prospects*, 14.

Overall, the two countries need to reduce tensions and try to ease the security dilemma. They need to divert resources from defence and armaments into human development and poverty alleviation.

## **Conclusion**

Security dilemma is destabilising for deterrence. The inevitable action-reaction dynamic associated with security dilemma, the resulting arms racing in both the conventional and the nuclear field, aggressive doctrinal changes and counter doctrinal changes ensure that deterrence is destabilised if it does not stand null and void. It is not individual weapons technologies but the security dilemma that is driving them, which is, again, destabilising for deterrence. The findings of the paper support my basic argument that security dilemma and resulting TNW, BMD or any major weapons development in the nuclear realm disturbs deterrence stability, necessitating doctrinal adjustments and developing counter weapons systems or force postures. In a region like South Asia where deterrence is shaky at its best, introduction of defence systems, BMD and TNW, are likely to further destabilise deterrence if not make it obsolete. There is, therefore, a linkage between security dilemma and deterrence stability in South Asia. Any weapon system or doctrinal change that affects the capability or credibility of either proponent's nuclear deterrent is destabilising for deterrence.

The way forward for India and Pakistan is to ameliorate or lessen the security dilemma, work on nuclear restraint regime, negotiate arms control and disarmament measures, work on resolving the outstanding issues like Kashmir that make the relationship conflict-prone. Arms race and aggressive doctrines are counterproductive since they do not increase the security of either India or Pakistan and only lead to a destructive path to nuclear war that is not in the interest of anyone.