

# Deterrence Stability In Nuclear South Asia: Issues And Complexities

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## Abstract:

This qualitative research aims to analyze how the major strategic shift in the behavior of nuclear India from defensive (pre-detonation era) to offensive (post-detonation era) has challenged the deterrence stability of south Asia by providing legitimation to Pakistan's deterrent options? Due to this 20<sup>th</sup> century's most enduring rivalry (Indo-Pak) and increasing mutual suspicions, the regional nuclear powers are gripped in a Security dilemma. Consequently, the already meager regional resources have been directed towards adding more sophisticated, advanced, and sensitive military technologies (indigenous or imported) to counter the adversary's possible advances. Due to the complex geostrategic location of these nuclear rivals, any triggered conflict may lead to catastrophic outcomes. Which may have deadliest consequences not only for the entire region but also for the rest of the world. Consequently, South Asia the home to one-third of the global population is considered as a nuclear flash point or the most dangerous region on earth. To consolidate this research secondary resources have been used.

**Key Words:** Surgical strike, Cold Start Doctrine, Land Warfare Doctrine, counterforce, counter value.

## I. Introduction

In order to answer the question, how the major strategic shift in the behavior of nuclear India from defensive (pre-detonation era) to offensive (post-detonation era) has challenged the deterrence stability of south Asia by providing legitimation to Pakistan's deterrent options? We first need to have a brief look at the demographics of the region in general. South Asia is the most densely populated region in the world and is home to almost one-third of the total global population. After the de-colonization of the sub-continent (sub-region of south Asia), the region was divided into two states India and Pakistan in

1947. The hurried partition plan by the British and other pre-post partition differences, (chronic clash of interests regarding territorial claims, water sharing, issue of refugees and division of the assets of united India under British rule) consolidated this most 'enduring rivalry' of the 20<sup>th</sup> century. Even the so-called 'Peaceful phases' were uneasy and short-lived. An analyst Asley Tellis coined a term "ugly stability" as both nations have entangled themselves in three full-fledged wars along with a number of dangerous standoffs and continuous border skirmishes (Khan, 2019).

Though the newly created state of Pakistan was relatively much smaller in size as compared to India, yet became the fifth largest country in the world in terms of area and population. The crucial geostrategic locality made it extremely attractive for the major powers of the world since its very creation. Being located on the cross-roads of south, central and west Asia, Pakistan provides the shortest possible access to sea, to land locked and energy-rich Central Asian Republics as well as to Afghanistan. Similarly, Pakistan's coastal areas are connected to the aperture of the Persian Gulf where more than 60% of the oil and gas transportation takes place and the route is considered as life-line to the global economy (Shehbaz Hussain, 2019).

On the other hand, huge landmass, population, and resources made India the most prominent regional power surrounded by comparatively weak and smaller states. Any two states of the region either have to meet in India or they have to cross Indian territory (land or sea) to interact with each other. This obstacle made South Asia more Indo-centric in nature and it became the least integrated region of the world.

## **1.2 Nuclearization of India**

After independence India became one of the most prominent advocates for universal nuclear disarmament. India's spiritual and prominent political leader Mohandas Gandhi wrote in Harijan in 1948, that "I regard the employment of the atom bomb for the wholesale destruction of men, women and children as the most diabolical use of science (Merton, 1965). Jawaharlal Nehru coined the idea of a 'complete ban on nuclear testing' in 1954 and claimed that, "India would demonstrate its global leadership by rising above and attempting to end the global nuclear arms race" (Singh, 2001).

Explicit interest in acquiring nuclear technology was shown by New Delhi just a few years after independence 1950s and embarked on

the 'Peaceful Nuclear Program' for the fulfillment of civilian needs (Thomas, January 1986). In the mid-1950s the consensus among Indian leadership starts developing regarding the idea of acquiring nuclear weapons. As being part of the world of realpolitik, nuclear weapons were considered as the weapon of "nation's greatness" as well as the "instrument of power" due to their deterrent impacts. Indian analyst Jayita Sarkar opines that nuclear weapons became a compulsion for New Delhi after Chinese nuclear tests in 1964 along with the growing Sino-Pak-US nexus.

In July 1968 India refused to sign the 'Nuclear Non-Proliferation Treaty' (NPT) at the eleventh hour and charged it as 'discriminatory'. Though previously she was the world's leading advocate of NPT and argued 'entrench the status quo of possession for the existing nuclear weapons states' thus preventing a chance of general nuclear disarmament.

An Indian analyst Jayita Sarkar admitted that "due to China's nuclear capability India's security was at stake however there was no existential threat". Since After approval was given to conduct the 'nuclear test' by PM Indira Gandhi in 1972, India on May 18th, 1974 carried out its first nuclear explosion and named it 'Operation Smiling Buddha' and 'peaceful nuclear explosion'. An explosion was a demonstration of the Indian capacity to produce nuclear weapons and had valid justification for both domestic and external security calculations. Besides external security needs, Mrs. Gandhi aims to bolster her domestic image was equally important and provided her legitimacy to impose a state of emergency in 1975-77 in India (Roychowdhury, 2018).

## **1.3 Pakistan Nuclear Program: Indo-Centric in Nature**

In the initial stages, Pakistan too initiated its nuclear program with an intention of peaceful

purposes. Eisenhower's 'atom for peace program' facilitated Pakistan's access to nuclear energy for 'civilian benefit' which drive the nuclear program in general till 1960s. Due to the enduring rivalry in the post-partition era and existential threat since its creation, Pakistan's nuclear program wholly and solely evolved with Indo-centric in nature. As Feroz Khan pronounces that "1960s was the turning point and a defining moment in the history of Pakistan's nuclear program, as India started making advances in the nuclear field" (Khan, 2012).

In mid-60s when India started making advances in nuclear field, two lobbies exist one was 'nuclear enthusiast lobby' led by Zulfikar Ali Bhutto then Foreign Minister of Pakistan who favored for Pakistan's nuclear program. Whereas the other was 'nuclear cautionist lobby' led by President Ayub Khan. However, the complex security environment exposed Pakistan's limitations regarding its strategic depth which came to limelight during Indo-Pak war in 1965. By the end of war Mr. Bhutto tried to exploit the controversial 'Tashkent Pact' against President Ayub Khan while emphasizing on nuclear option. However, only a small minority approved his opinion till his rise among the top leadership of Pakistan particularly, in the aftermath of 1971. The final decision to opt for nuclear technology for military and defense purposes by Islamabad was certainly an outcome of the 1971 Indo-Pakistan war, which resulted in serious national injury and lost half of its territory (east Pakistan separated and became Bangladesh). Secondly knowing India's nuclear ambitions, leadership in Islamabad draw the conclusion that the acquisition of nuclear option is not only the direct response to New Delhi, but it is also the last resort to nullify conventional Indian superiority. Bhutto opined that nuclear capability of Pakistan will strengthen the country's status among Islamic nations and will help to improve the morale of a public that they lost in the debacle of Dhaka. Bhutto may also have intended to raise his

personal standing in domestic politics. Prime minister Bhutto declared Indian nuclear tests 1974 as a 'fateful development' and showed solid determination that Islamabad would neither be a victim nor will be intimidated by 'Indian nuclear blackmailing' (Perkovich, 1999).

#### **1.4 The Acceleration of Nuclear Programs in South Asia**

Afghanistan's invasion by USSR in 1979 proved beneficial for Pakistan. As nuclear non-proliferation efforts by the U. S were put on the backburner and Washington moved forward for Pakistan's strategic partnership to counter USSR advances in the region. During 1980's the U.S relations with both Islamabad and New Delhi were on its best. However, at the same time the development phase of nuclear programs of both south Asian countries was probably on its peak.

Though some of prominent U.S congressmen showed concerns over Pakistan's nuclear program, its long-term regional impacts and US policy towards nonproliferation objectives. However, during 1980's Washington policy was mainly driven by its anti-communist ambitions and to roll back the Moscow onslaught in the region. Eventually, the U.S administration successfully convinced the congress to pass a provision in the national interest of the U.S. The provision paved the way to waive the 'Symington Amendment' for six years by the President Reagan. Non-proliferation law (section of law) was also amended by congress (which aimed to cut-off US financial assistance to any non-nuclear country which test or explode nuclear devices). Pakistan was eligible for the U.S aid until she abstained from testing its nuclear capability. On the other hand, Pakistan administration tried hard to alleviate Washington concerns and in February, 1980 President Zia stated that, "We are not making any bomb.... It is a modest experiment that we are carrying on.... We are only trying to acquire technology" (Learn a Lesson from History, 1980).

## 2. India's Security Policy towards Pakistan in the Pre-Detonation era

Conventional power superiority was the military strategy conceived by the Indian Army Chief General Krishna Swami Sunderji (Feb 1985 - March 1988). Who advocated conventional military buildup along with modernization of strategic forces which became the basis of military doctrine known as Sunderji Doctrine in the military history of India. The key tenants of Sunderji doctrine were based on geo-centric conventional military strategy. It was based on integrated use of well-crafted columns of infantry, artillery and armors as a basis of land army structure. Moreover, use of swift and sharp strike by tanks in the main battle field was another component of this doctrine. Computerized or mechanized infantry columns structuring and mobilization during warfare was another important aspect of this doctrine. Sunderji doctrine advocated the conventional military superiority against its neighbors resulted in development of tank army as its main battle strategy. The Indian army under General Sunderji command carried out operation Brasstacks in 1986-87 along with India-Pakistan border (operation Falcon along with India-China border) which aimed at projecting India's conventional military muscles and war gaming practice. Operation Brasstacks was the largest military exercise carried out by any country in the world and involving the highest number of tanks after WWII. For much of the 1990s, India largely remain reliant on Sunderji doctrine for its defense strategy and security needs. However, a major shift to Indian conventional military superiority in post Operation Parakharan 2001-02. Indian mobilized its armed forces after an attack on the Indian Parliament in 2001. Pakistan mobilized its armed forces more swiftly than India to deter India's perceived aggression. The change in Indian strategic thinking compelled India to adopt new security policy with limited military attack

below the nuclear threshold popularly known as Cold Start Doctrine(CSD).

Sunderji Doctrine had proposed seven 'holding corps' installed near the Pakistan border region and was based on infantry, mobile mechanized and armored units. These 'holding corps' were not only supposed to check advances of the enemy but also had limited yet confirmed capability to conduct offensive operations. Though the 'holding corps' were stationed near the border, the strike corps were deployed at a substantial distance from the international border with Pakistan in Central India (1st in Mathura, 2nd in Ambala, 3rd Bhopal). The battle plans envisioned by Sunderji Doctrine was, that once holding corps will halt Pakistan's attack, counterattack would be initiated by 'Strike Corps' from Indian Rajasthan sector and will penetrate deep inside the territory of Pakistan. It was also proposed that Indian Air Force (IAF) will first gain air supremacy over Pakistan, then it will provide security and protection to the three striking corps for the operations on the ground.

As the 2001-02 crises stirred and prolonged for almost a year, India's strategic circles started serious questioning over the efficacy of Sunderji Doctrine. It also frustrated the New Delhi administration, as the inabilities or limitations of its arms forces failed her to convey timely threat message to Islamabad. From the time when the orders for the mobilization were given, it took almost three weeks by strike corps to reach the border areas with Pakistan. In the mean while there was enough time for Pakistan army to counter-mobilize itself against Indian army. Though New Delhi proclaimed that 'Operation Parakram' was merely a coercive exercise, however shortcomings were perceived between policy decision and military action. Moreover, it was observed that new doctrinal approach was desperately required to counter the contemporary security challenges specific to Pakistan.

### 3. Shift from Sunderji Doctrine to Cold Start Doctrine and Land Warfare Doctrine

In the last two decades' tremendous changes in the India's strategic thinking have been noticed which led to the adaptation of offensive military doctrines. The most notable shift is from 'Sunderji Doctrine' to 'Cold Start Doctrine' (CSD) 2004 and the new 'Land Warfare Doctrine' (LWD) 2018.

#### 3.1 Cold Start Doctrine

Indian conventional war fighting strategies established on 'Sunderji Doctrine' since early 1980's was somewhat defensive in nature (Hilali, 2001). In April 2004, a new 'Pakistan specific' military doctrine was adopted by Indian military called 'Cold Start Doctrine'(CSD). The CSD developed out of interconnected notions of, 'hot pursuit', 'coercive diplomacy', or the 'limited War under Nuclear Umbrella' (Yuan, 2001).

India's new military Doctrine CSD says that it is not appropriate to mobilize the whole of army to pursue 'limited objectives'. As it is too inflexible and crude war-fighting strategy to penetrate inside Pakistan with enormous armored mobilization, in response to terrorist attacks or other challenges (Gady, 2019). Ladwig claimed that three major inadequacies regarding the operationalization of Sunderji Doctrine during Operation Parakram were identified by the India's leadership. Firstly, it was very difficult to deploy and maneuver the massive-sized strike corps. Moreover, when the strike corps reached near the international borders along with Pakistan 2001-2, President Musharraf gave his "U-turn speech". In response entire U.S pressure to restrain came on India. Many of the senior Indian officers perceived that 'India had been outplayed by Pakistan'. They stated that Islamabad not only inflicted an attack on India's capital through its sponsored proxies but also managed to exploit the time which Indian army took during its mobilization and deployment. Indian strategic

thinkers believe that the delay provided the space to Pakistan to internationalize the issue and involve its allies, especially US. In meanwhile, political leadership of India lose their nerves and could not withstand the international pressure, resulted in India's failure in retribution (Kapila, 2021).

In Ladwig's opinion, the second shortcoming was 'strike corps performance' being lacking in strategic surprise capability. Furthermore, the intelligence agencies of Pakistan were focused on the 'strike corps' and due to its lumbering and enormous composition it was relatively easier for Pakistan to detect the mobilization of corps, their advancement as well as their destination. So it became pretty easier for Islamabad to build a counter-strategy against the intended attack from the Indian side (Ladwig, 2007-08).

Finally, the lack of offensive capability in the holding corps became a matter of real concern. Though these units of holding corps were deployed near the border yet they had limited offensive capability. So India's strategists believe, that for the offensive tasks the sole dependence on strike corps became another notable hindrance in Indian rapid response after the December attacks (Ladwig, 2007). Thus, to counter Pakistan-specific security issues, India adopted new military doctrine which intends to deal with the inadequacies in Indian conventional war-fighting strategies.

It is widely believed in India's strategic community that the new 'Cold Start Doctrine' will enable New Delhi to mobilize its forces more rapidly to retaliate Pakistan particularly on Kashmir front. Thus the chief objective of this particular military doctrine is to launch an immediate punitive attack and to inflict substantial harm to Pakistan forces before any intervention from international community. Hence, New Delhi believe that while pursuing objectives, Islamabad will be denied of any

justifications or legitimacy to escalate the conditions towards nuclear level (The Times of India, 2007). This new doctrine restructured the three enormous strike corps of India's offensive force into smaller divisions named as "integrated battle groups" (IBGs) just like those of USSR's operational maneuver groups (Patel, 2004). Moreover, multiple strikes will be launched into Pakistan by eight IBGs with a close air support by IAF as well as by Indian navy. Sunderji Doctrine's 'holding Corps' were restructured into the Cold Start doctrine's 'pivot corps' which would be further strengthened by artillery and armor. Additionally, these pivot corps are not only supposed to hold defensive positions (unlike holding corps) but will also be able to initiate 'limited offensive operations' when needed.

Henceforth, the new doctrine envisages that the operation would be continued day and night will the achievement of all military objectives. India stated that, seeking for the catastrophic blows to the adversary are not the objectives of Cold Start Doctrine, rather it intends to penetrate 50-80 kilometers deep inside Pakistan to strive for limited territorial gains. Then in post-conflict dialogues the gains will be used to extract concessions from Pakistan. While commenting on the Cold Start Doctrine's aims and objectives Ladwig thinks that "By moving forces into unpredicted locations at high speeds and making decisions faster than their opponents can, the IBGs seek to defeat Pakistani forces in the field by disrupting their cohesion" (Ladwig III, 2008). With the help of this new doctrine India envisage to take advantage by surprising its enemy on both the levels, strategic as well as operational to accomplish the desired results before the intervention of any external power, just as it was done by United States during Operation Parakram. Hence, the civilian Indian leadership would be prevented from halting due to the promptness of operation, in case there is an issue of inadequate resolve (Kapila, 2021).

### **a. Surgical Strike**

Surgical strike is usually described as the military attack with surgically precise and extremely targeted with clear objectives to accomplish. The attack may be carry out with the involvement of air force, aimed at causing damage to the enemy without or minimum collateral damage. According to Pakistan's Ex-Air Chief (retired) Air Marshal Tahir Rafique Butt, "surgical strike is a term used by air force, where you go into an area which could be enemy area, and you precisely take out the targets in a precise manner without causing any collateral damage to achieve your objectives and come back" (Khattak, 2018).

Moreover, Air Marshal Shahzad Chaudhry defines "a surgical strike is one that comes as a surprise and conducts with surgical efficiency" (Atiqarehman, 2016). Shubhodeep Chakravarty describes that "surgical strikes are the military operations undertaken by the forces across the world to move on the offensive, hit enemy targets and installations and return to primary positions all with lightning speed and with the added precaution of suffering the limited casualty" (Jaspal, India's surgical strike 'stratagem Brinkmanship and response, 2019).

These small-unit raids aimed at "destroying the will of the enemy to the point of ineffectiveness". This new strategy is based on ambush instead of combat, by infiltration instead of aggression and seeking victory by airstrikes eroding and exhausting the enemy instead of engaging. Surgical strike may be considered by a country when it fears that the adversary's first strike is unavoidable or can be called as "Preventive war doctrine". Though this 'Preventive war doctrine' is seldom justified and perhaps contrary to the UN charter. However, Dr. Jaspal believes that, the geo-military disequilibrium favors New Delhi to influence Islamabad strategic outlook as both are unequal in size, resources and population. He opines that, "New Delhi swaps risky warfare approach with

law fare approach to avoid nuclear Armageddon between the nuclear-armed belligerent neighbors" (Jaspal, India's surgical strike 'stratagem Brinkmanship and response, 2019). The philosophical construct of Indian military doctrine has remained focused on 'Great Power stature' from beginning to date. And the great power ought to use the power aggressively or threat the use of force. Similarly, in the immediate neighborhood New Delhi pursue supremacy over the smaller nations of the region around it.

Gautam Da opines, "India has not yet faced an existentialist threat, not is there an immediate military threat (Gautam, 2011). Bharat Karnad, while commenting on the evolution of the India's strategic thought admits that, "Indian strategic policies seems at once, expedient, archaic and shortsighted" (Bharat, 2014). Hyperrealist school of thought in India believes, states are predestined to pursue balance of power, deterrence and war. "conflict and rivalry between states cannot be transformed into peace and friendship except temporarily alliance; the threat and use of violence can only manage them. Preparing for the war is therefore not warmongering; it is responsible and wise statecraft. War comes when rival states calculate that the other side is either getting too powerful or is weakening" (Bajpai, 2010). Hence their perspective is that Pakistan only understands the language of power and must therefore be dealt with, from position of strength. "Hyperrealists believe in prevailing over Pakistan by reducing it to a permanent state of chaos and debility" (Jaspal, India's surgical strike 'stratagem Brinkmanship and response, 2019). Hindu nationalism and Hindutva in combination represents political Hinduism. Rahul Sagar pointed out that, "the Hindu nationalists are driven by contradictory impulses of pride and shame: Pride in what they consider the self-evident importance of Indian civilization, and shame at its past subjugation by Muslim and

British invaders and as its continuing weak response to security threats" (Sagar, 2009). Both Hindu nationalist and hyperrealists firmly supports the acquisition and advancement of military power to deal with rivals.

Dr. Jaspal stated that, "the surgical strike has been used as a forceful political tool by the BJP government in general and Modi administration in particular to exhibit that only this government has the political courage to take a very bold decision against Pakistan and he would be less restrained in employing military means in punishing Pakistan". He further added that, "this militaristic approach and narrative is very useful for both Mr. Narendra Modi and BJP for mustering the support of both strategic hawks and Hindu Nationalist" (Hussain, 2016).

#### **b. Revamping No-First-Use Policy**

No First Use Policy(NFU) in conflict remained the primary tenet of Indian nuclear doctrine and still this school of thought favors the upholding of NFU policy. The followers of this school of thought view it as a symbol of "responsible nuclear armed state" and believe that "nuclear weapons for deterrent purposes". The second school of thought are extremely frustrated with the stance of NFU and continuously exerting pressure on the government to alter the nuclear doctrine from 'no first use' to 'first use'. They believe that, "the NFU posture is likely to result in unacceptably high initial casualties and damage to Indian cities and infrastructure. Moreover, the threat of massive retaliation lacks credibility, especially in retaliation to the first use of tactical Nuclear Weapons against Indian forces on the adversary's own territory" (Kanwaal, 2016). Therefore, this school of thought recommends that the NFU must be swapped.

However, the third school of thought supports the "two-fold policy". It suggests that the NFU policy should be used and continued for the "diplomatic consumption" and along with that

India must kept on developing "launch-on-warning" or "preemptive strike capability". They advocate that India can use nuclear weapons without official revision or amendment of its NFU nuclear doctrine (Kanwaal, 2016). The current strategic deliberation within diplomatic spheres of India suggests that, "New Delhi may depart from its declaratory NFU policy especially, to address Pakistan's Full Spectrum Deterrence posture and also the asymmetry with China, it is developing a capability to use nuclear weapons first" (Siddique, 2020).

Vipin Narang thinks that, "there is a potential gray area as to when India would use nuclear weapons first against another NWS" (Ramana, 2003). The hawks in India opines that due to the war on terror Pakistan faces "two-front border insecurities". Moreover, Pakistan forces are engaged on border incursions as well as dealing with the civil unrest and resulting in advantages for India. Though in case of nuclear war consequences for both countries would be perilous however, the conventional as well as nuclear asymmetries creates an impression that in case of any such circumstances "India might survive and Pakistan may not" (Basrur, 2009).

New Delhi proclaimed, to use its nuclear arsenals while responding to any chemical or biological weapons attack against Indian armed forces anywhere in the world. This dropping down of the nuclear threshold under CSD is considered by the strategic and military experts as a precarious policy with perilous outcomes. As Cold Start Doctrine demands limited war or surgical strike/proactive operations and legitimize pre-emptive doctrine. Like the "simulating Israel's destruction of Iraq's Osirak reactor in June 1981 and US invasion of Iraq in 2003 on false pretexts of weapons of mass destruction" (Mustafa, 2015).

A nuclear scholar, Vipin Narang, has cautioned about New Delhi withdrawing its stated 'no-first use' nuclear policy: "India's

opening salvo may not be conventional strikes trying to pick off just Nasr batteries [launch vehicles for Pakistan's tactical battlefield nuclear warheads] in the theatre, but a full 'comprehensive counterforce strike' that attempts to completely disarm Pakistan of its nuclear weapons so that India does not have to engage in iterative tit-for-tat exchanges and expose its own cities to nuclear destruction" (Marwat, 2017).

It indicates that any surgical strike by India will be responded by Pakistan's TNW. It will further invite India's massive nuclear retaliation. A nuclear expert Scott Sagan concluded while commenting on nuclear South Asia that: "It is deeply ironic that the Indian government has produced a doctrine that is both less defensive in character and less independent in origin – copying controversial innovations developed in the United States and other nuclear powers – in its effort to be a more 'responsible nuclear power' and to add more 'realism' to Indian nuclear doctrine" (Sagan, 2009).

### **c. Counter Value to Counter Force**

In military doctrine, counter value is the targeting of an opponent's assets that are of value but not actually a military threat, such as cities and civilian populations. Counterforce is the targeting of an opponent's military forces and facilities. In nuclear strategy, counterforce target is one that has a military value like an airbase at which nuclear bombers are stationed or a homeport for ballistic missile submarines or command and control installations. Both India and Pakistan already possess means to destroy soft or counter value targets. According to the estimates the number of arsenals India and Pakistan possess accedes the number of targets against their respective adversary.

Addition of more sophisticated and diversified arsenals like BMD (Ballistic Missile Defence) and MIRVs (Multiple Independent Reentry Vehicles) have the tendency to alter the



security dynamics of the region. Pakistan claimed testing its MIRVs in January, 2017. Whereas India appears to be developing BMDs and MIRVs (a combination) that could destabilize the region to an extent that signals the further erosion of India's NFU (No First Use) commitment. Secondly, it doubts the survivability of Pakistan's second strike capability as the BMDs are pre-emptive in tendency and encourages first strike. BMDs are very expensive and required a lot of testing. Development of this combination of BMDs and MIRVs will turn the balance of power towards India and will further destabilize the region.

### 3.2 Land Warfare Doctrine 2018 (LWD)

India is vigorously transforming its military doctrines regularly, to fill its operational gaps to integrate its all three military services in the execution of its 'conventional limited war-fighting strategies'. LWD -2018 is the modified and advanced form of its early limited warfare doctrines (2017 Joint Doctrine Indian Armed Forces) which aimed to launch swift and intense operations below Pakistan's nuclear threshold. Though major tenants of LWD are force modernization, collaboration & integration, swift mobilization, to execute 'limited war' against Islamabad. However, it aims to wage or counter a multi-domain complex warfare i.e., Hybrid Warfare, Cyber Warfare, Information Warfare and developing Electronic Warfare.

New Delhi is in quest to modernize its military under LWD, with fast-tracked international purchases and indigenous weaponry production. According to India Today, "In 2019, the Indian government planned to spend US\$130 billion for the upgradation and modernization of its armed forces in the next 5-7 years. In late 2020, the Indian government approved US\$5.55 billion projects to upgrade and acquire military equipment. In 2019-2021, India has finalized 38 foreign deals to acquire new military equipment". (India, 2019)

According to Hindustan Times, India's Foreign minister Mr. Jaishankar admitted that India has used "hybrid domain of warfare" practically against Pakistan and ensured that the latter remain on the 'FATF grey list'. (India admits it 'ensured' Pakistan remains on grey list, 2021). Moreover, in order to weaken the federation of Pakistan and to sabotage the CPEC, New Delhi supports the Baloch separatists. An Indian spy arrested by Pakistan authorities admitted the anti-Pakistan activities.

"Cyber-domain warfare" is also a significant aspect of LWD. India-Israel signed a MoU on cyber security cooperation in January 2018 which resulted in signing a MoU on 'Operational Cooperation in capacity building' in July 2020. The deal aroused serious concerns in Islamabad camp, when it was detected that the spyware named 'Pegasus' developed by the Israel company NSO, was used to access the mobile data of Prime Minister and some other high profile officials from Pakistan. (India and Israel sign agreement to expand collaboration in dealing with cyber threats, 2020) 'Symantec' the US company claimed that "Pakistan is the most spied country and vulnerable to such kind of cyber-attacks".

"Information-domain of warfare" is yet another tenant of LWD. In order to counter propaganda, New Delhi approved the establishment of branch of 'information warfare in the Indian army' in 2019. However, the fact is that the acquired defensive capabilities are later used for offensive purposes. According to Al-Jazeera TV, EU Dis-Info-Lab exposed over thousand fake websites involved in propaganda campaign against Pakistan. (Kuchay, 2020)

Samyukta Electronic warfare system is an indigenous developed mobile system by India which has the capability to listen and jam radars and other communication means. It can provide further advantage to India in 'limited war' times along with the LoC.

After land, air and sea, space became the new battlefield. India is the first south Asian country who has opened this new fourth avenue of 'militarizing the Space' for strategic purposes. The Indian Space Research Organization (ISRO) launched ten 'earth observation satellites' with featuring surveillance satellites in the years 2020-21 along with two communication satellites. Furthermore, India's close collaboration with US in sharing satellite-data has given it an upper hand in space. Therefore, strategic experts opine that it will further encourage India to pursue its truculent designs in the region.

#### **4. Indo-US Military Cooperation: Way forward for Arms Modernization**

The Washington remains a top arms exporter in the world and holds a leading position in exporting military equipment to its allies. In order to expand and to sustain its military-industrial complex, US is striving to create new opportunities. On the other hand, the ruling elites in New Delhi personifies the country as a 'Great Power' which has shaped the very nature of Indian military doctrine since 1947. These decade-old aspirations to play a leading role in the region and beyond have been expedited by the rapidly growing economy. Consequently, Indian defense market became an attraction for US defense contractors. Perhaps the most important dimension of Indo-US strategic partnership is the defense cooperation. The US President Bush and his administration adopted pro-Indian approach and amended many acts in order to carried out the smooth transition of defense hardware and technology to New Delhi. Hence Washington's arms sale to New Delhi went from zero to \$15 billion from 2007 to 2017 (Bipindra, 2018). Thus, "The US became the 2<sup>nd</sup> largest arms supplier of India" (Pandit, 2020).

The New York Times report avowed, "Indian army's equipment is vintage, as 60 percent is so old, moreover in case of war the army has only ten days of ammunition" (Sultan,

2018). In order to counter this challenge, the local companies (private) were given the permission to work with foreign players by the Modi administration, to develop high-tech defense equipment within India in 2017. Moreover, \$ 250 billion was announced for the upgradation of Indian armed forces in the next decade. This ambitious plan of military purchases spree made India and its military bureaucracy extremely attractive for the global military complexes. Mark Magnier thinks that "fueled by superpower ambitions and rivalry with China but hampered by a creaky domestic defense industry, India is on a military buying spree that's made it the belle-of-the-global-military ball" (Magnie, 2012). Another opinion is that "New Delhi will be endeavored by the western governments to revamp the military doctrine and purchase more advanced and sophisticated military weapons" (Bipindra, 2018).

The US also facilitated and supported India's membership in four major multinational technological associations which includes, Missile Technological Control Regime, Waessenner Arrangement, Nuclear Supplier Group and Australia Group. Additionally, in July, 2018 Strategic Trade Authorization-1(STA-1) status was granted to India. Previously this status was only granted to those countries of the world who were the members of the four export control regimes whereas, India was the member of only three. This extraordinary status provided to India, gave her an access to most sophisticated, advance and sensitive military technologies. Furthermore, 2+2 process operationalized India's status as a "Major Defense Partner". In 2018, a 10 years' deal was signed between New Delhi and Washington, 'Communication Compatibility and Security Agreement' that is "one of the four foundation agreements that the US signs with allies and close partners to facilitate interoperability between militaries and the sale of high-end technology". The US Secretary of Commerce Wilbur Ross stated: "Both the STA-1

and the 2+2 process will strengthen the Indo-US strategic partnership, and will especially further the military linkages between New Delhi and Washington" (Jaspal, 2021).

India spent considerable amount on military hardware purchases from advanced countries whereas, Islamabad remained critically engaged in menace of terrorism. Stockholm International Peace Research Institute (SIPRI) fact sheet indicates that India remained the top importer of the global "major arms industry". In 2007-11 imports counted 9.7 percent of the global arms imports and further increased in 2012-16 and accounted for 13 percent of the global total. Similarly, the trend continued on the similar pattern from 2017-19 and Indian arms imports kept on increasing. The imports are far higher than its regional adversaries China and Pakistan. Moreover, imports from France and Israel increased by 715 and 175 percent respectively. Strategic analysts opine, that India's massive investment in defense hardware or defense systems has increased the probability of military adventurism.

The most recent development in this field are the induction of 'advanced fifth generation Rafale aircrafts (with 2,200 km per hour) in Indian air force. Indian Defense Minister Rajnath Singh declared, that "the induction of the Rafale as the beginning of a new era of the country's military history" (Pandit, 2020). Induction of fifth generation Rafale aircrafts (in IAF) will further strengthen the striking capabilities of India particularly against Pakistan both in nuclear as well as conventional terms as F-16 and JF-17 thunder (part of PAF) are fourth-generation jets.

Islamabad has shown concerns that Rafale jets might encourage Indian power elite to "pursue its objectives through surgical strikes" against Pakistan. However, this type of adventurism would be devastating for both the sides. New Delhi has successfully developed nuclear-capable short, medium and intermediate-

range ballistic and cruise missiles and handed the control to its Strategic Forces Command (SFC). Agni –missiles especially Agni V (inducted in 2018) is considered as the backbone of nuclear deterrence force of India against China. Islamabad has always been struggling to maintain military symmetry with New Delhi. These military purchases will have serious and lasting implications for the strategic environment of South Asia. This military buildup either imported from technologically advanced world or through indigenous development have deepened the security dilemma puzzle in inter-state relations.

## **5. To Sustain Strategic Equilibrium: Pakistan Deterrent Options**

Overall Strategic deterrence of Pakistan has remained Indian-centric. The huge gap present between India and Pakistan's conventional military powers, resulted in security dilemma. "Security dilemma, in political science, is a situation in which actions taken by a state to increase its own security cause reactions from other states, which in turn lead to a decrease rather than an increase in the original state's security". Consequently, Islamabad's dependence on nuclear deterrence immensely increased. Moreover, the components of 'minimum deterrence' and 'credible deterrence' are neither static nor it can be quantified. Pakistan's officials stated that, "deterrence requirements remain dynamic and a particular number of nuclear weapons to meet the requirements cannot be quantified". Strategic analysts believe that to calibrate India's military capabilities and to counter the India's hegemonic designs, Pakistan have accelerated the expansion of its deterrent options (Jaspal, Tactical Nuclear Weapon: Deterrence Stability between India and Pakistan, 2011).

### **5.1 Full-Spectrum-Deterrence**

According to Sania, "Pakistan's nuclear doctrine and force posture evolved steadfastly from

minimum credible deterrence to credible minimum deterrence in line with the dictates of full-spectrum deterrence (FSD)" (Abdullah, 2018). Full-Spectrum-Deterrence (FSD) came to limelight on April 21st, 2011 when Pakistan successfully tested, Surface-to-Surface Multi-Tube Short-Range Ballistic Missile Hatf IX or Nasr missile which is adept to carry nuclear warheads of 'appropriate yield' (Ahmad, 2016). With this development of low-yield Nuclear Weapons, Islamabad officially changed its nuclear policy from "Credible Minimum Deterrence to Full-Spectrum Deterrence". Pakistan's military establishment is self-assured that TNWs are 'a boom for strategic stability' and it will provide Pakistan, strategic as well as tactical tool to forestall the aggression of Indian forces under 'Cold Start doctrine'. This shift in Pakistan's nuclear policy faced wide ranging criticism both regionally and internationally. However, Zafar Jaspal, noticeable Pakistani academician and defense analyst, "...Pakistani defensive formations would be capable of using [tactical] nuclear strikes to annihilate the adversary's advancing rapid cavalry/armored thrust in the Southern desert theatre or taking advantage of the short distance from the border to takeover Lahore". Feroz Hassan Khan advocated by saying, "Nasr is not a war fighting weapons rather it is meant to deter assaulting forces at the tactical level" (Ahmad, 2016). Air Cdre. Adil Sultan, Director of the SPD's Arms echoes that, "Pakistan's TNWs have "neutralized" the Cold Start doctrine" (Raghavan, 2019).

On December 2017, Lt. Gen. Khalid Kidwai pointed out that, "Full Spectrum Deterrence policy guides the development of nuclear capability, which brings every Indian target into Pakistan's striking range. Consequently, Pakistan is developing a full spectrum of nuclear weapons in all three categories, strategic, operational and tactical with the full range coverage of the large India land mass and outlying territories". Islamabad started

manufacturing "appropriate weapons yield coverage and the number to deter the adversary's pronounced policy of massive retaliation" (Sultan, 2018). Additionally, Pakistan is mastering over nuclear weapons "for having a liberty of choosing from a full spectrum of targets, notwithstanding the Ballistic Missile Defense, to include counter value, counter force, and battlefield targets (Basrur, 2009). Islamabad continues to advocate its TNWs as cornerstone of its Nuclear Policy and carry on the production of fissile material required for its arsenals along with development of its short-range delivery systems.

Here Stability-Instability Paradox once again applies that, 'strategic stability' has been ensured by nuclear weapons on one hand, yet it has increased the risk of 'tactical instability' on the other hand. In other words, risk of full-fledged traditional warfare reduced whereas, prospects of new type of subversive warfare or 4th/5th Generation warfare has further increased. These types of modern wars have added further complexities particularly in South Asian region and capitalizing the internal vulnerabilities have been seen a resort.

Beside CSD some other elements also pushed Islamabad to acquire TNWs among which controversial and discriminatory Indo-US Nuclear deal in 2005 was top of the list, through which extraordinary favor was given to New Delhi by 'Nuclear Suppliers Group'. Consequently, New Delhi signed an agreement for the nuclear fuel supply and also being introduced to ABMs. It elevated the prospects for India's hegemonic designs in South Asia in general against Pakistan in particular. Thus it has imbalanced the strategic power equation of the region. By acquiring TNWs, Pakistan tried to minimize the gap created by CSD. Analysts opine that Islamabad achieved two-fold objectives on one hand deterred New Delhi not to wage a war

and on the other hand put up an effective response in case of limited war.

FSD intended to reiterate Islamabad's India-centric policy and desire to buttress "strategic equilibrium from sub-conventional to strategic levels". Islamabad claims that they consider nuclear weapons as the weapons of last resort and always kept the first-nuclear use option opened against its nuclear adversary. This has revamped Islamabad's "conventional warfighting doctrine" which is generally titled as comprehensive response. Moreover, strategic leadership of Pakistan has decided to fill the strategic gaps gradually in its force posture, through land, sea, and air-based delivery systems to negate or avert any Indian advances in the domain of warfare. However, extensive and rapid progress at the technological end has been witnessed. More fissile material is required by Pakistan to meet its inventory demands for the increased number of missiles. According to the 2018 Bulletin of Atomic Scientists' assessment of Pakistan's nuclear forces, "its current warhead count is between 140-150 warheads. So, Pakistan's full-spectrum deterrence policy is not compatible with the tenets of minimum credible deterrence" (Abdullah, 2018).

## 5.2 Credible Second Strike Capability

Another important component of Pakistan's Full-Spectrum Deterrence is the achievement of sea-based deterrence that safeguards the survival of Pakistan's strategic forces and allows the options of second or even third strike. A press release indicates that Pakistan have plans for launching counterforce target strategy through sea, air and land against India, "the submarine-launched cruise missile (SLCM) Babur-III provides Pakistan with a credible second strike capability, augmenting the existing deterrence regime". The trends point towards the likeliness of adopting "French naval deterrence strategy" by Pakistan. The strategy was based on "deploying smaller nuclear-powered ballistic missile-carrying

submarine (SSBN) and use other vessels for operational needs during crisis situations" (Abdullah, 2018). According to the experts Pakistan may opt to use French Agosta 90 B-class submarines along with indigenously manufactured SLCM, with 450 km range. According to reports Pakistan is acquiring Chinese Type 039A submarines too and it may be used as a platform for Babur-III launch (Siddique, 2020). Defense establishment of Pakistan considers FSD as a guarantee of its 'retaliation strategy' against 'Indian massive retaliation doctrine' (CSD). Moreover, it is widely believed that FSD has minimized the war probabilities in south Asia and India has been deterred from initiating any "Cold Start typed operational maneuvers" in the coming times. Pakistan's security planners foresee a force posture which capitulates escalatory capabilities to counter offensive Indian doctrines. Hence, along with making India short of response options and to achieve "escalation dominance" in a battle, it also appears to be a war termination strategy in limited warfighting scenario. As Sania Abdullah commented that, "Pakistan's current force posture walks a fine line between nuclear warfighting and a robust deterrence. With no No-First-Use affirmation, Pakistan's build-up of offensive capabilities under a nuclear warfighting force posture is a recipe for possible nuclear use (Siddique, 2020).

## Conclusion

In pre-detonation era neither side fully grasped the fears and expectations of other side and rather miscalculated on few occasions. Yet, there was neither any exchange of fire nor the nuclear threshold crossing possibilities were noticed from both the sides. Beside the domestic, regional and international factors, the state behaviors of both the south Asian nations were predominantly shaped with cautious attitude in pre-detonation eras. This cautious attitude was either adopted due to nuclear ambiguity or because of the

presence of nuclear weapons. Yet, it ensured the deterrence stability till nuclear detonation in 1998 beside the number of crisis emerged throughout the decades of 1980s and 90s.

The doctrines particularly 'Sunderji doctrine' adopted in pre-detonation era was comparatively less offensive when compared with the Indian military doctrines CSD and LWD (Post-detonation era). These doctrines are grounded on the offensive theory against Pakistan and based on the concept of deterrence against China. Problem for India is, what is 'credible deterrence' against China is not 'minimum' for Pakistan. This complex triangular traid has intensified the competition and weakened the deterrence stability in south Asia. As India is moving towards more sophistication and precise weaponry (combination of MRVs and BMDs), which has not only put a question mark on India's NFU policy but also shifted the 'power balance' in the favor of India. Consequently, to deal with security dilemma and to balance the strategic equilibrium, Pakistan has been provided the legitimation to adopt the similar path. Islamabad has adopted so-called 'New Concept of War Fighting' (NCWF) and also trying to import the extremely expensive technologies out of its meager resources. Whereas, the local population faces grave challenges like hunger, water scarcity, disease, lack of education, unemployment and extremism. As a result, massive frustrated and directionless youth becomes an easy prey for the regional and international terrorist organizations.

Due to the volatile and complex regional strategic environment, India and Pakistan need to modernize their armed forces. But arms race always entails power transition, generate misperception, miscalculation and encourages the rivals to opt for preventive war-fighting strategies rather than work sincerely on stability.

Moreover, offensive strategy has been manifested through targeting Pakistan's socio-

economic disparities and sponsoring militant organizations against Pakistan. Continuous campaigns launched against Pakistan's international standings, attempted disruption of Pak-China economic corridor and use of Afghan soil against Pakistan, have serious implications for Pakistan. This pushed Pakistan towards security dilemma and left Islamabad with no other options but to counter these offensive Indian strategies through cumulative war-fighting capabilities. Unfortunately, rather than mitigating the issues both the sides are more focused to boost the combat capabilities. Both the sides are not only upgrading their conventional armories, but also expanding their nuclear arsenals and adding more sophisticated delivery system in their respective forces. In prevailing environment any technical or human error can be misread or miscalculated by the other side can prove deadliest for the entire region and for the rest of the world. Thus, the desire to achieve strategic stability in south Asia seems unattainable in the coming times.

### **Recommendations**

- Dispute resolution must be focused rather than managing the crisis merely, otherwise regular occurrence of crisis may lead the region towards any catastrophic conflict.
- International players should work to eliminate incentives for any actor who provoke crisis, even if it manages to escape the crisis with the face saver. Balance analysis of post-crisis actions is required to raise the costs for provoker while the victims must be provided the reward.
- Public opinion must be mobilized to exert pressure over both the governments to stop the unending arms race and the resources must be used for poverty elimination and to counter other pressing challenges.

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