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Dynamics of Nuclear Order in South Asia

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Strategic Vision Institute (SVI) organized an International Seminar as part of its Bi-monthly Seminar series on "Dynamics of Nuclear Order in South Asia" on July 5, 2017 at Serena Hotel, Islamabad. The seminar was divided into two sessions. In the first session Dr. Zafar Iqbal Cheema President/Executive Director SVI welcomed and thanked the guest speakers Dr. Tariq Rauf (Head, Verification and Security Policy Coordination, Office reporting to the Director General, International Atomic Energy Agency), Dr. Andrew Futter (Associate Professor of Politics & IR, University of Leicester, UK), Prof. Christoph Bluth (Professor of IR & Security, University of Bradford, UK), Brig. Zahir H. Kazmi, Dr. Rizwana K. Abbasi (Associate Professor, Dept. of International Relations, National Defense University) Dr. Zafar Khan (Assistant Professor Dept. of Strategic Studies, National Defense University) and Ms. Maimuna Ashraf (Research Associate, SVI). He also thanked all the distinguished guests and audience for affording valuable time and gracing the occasion with their presence.

Session I:

Dr. Zafar Iqbal Cheema while discussing the nuclearization of South Asia stated that a special strategic and nuclear environment prevails in this region. Both South Asian nuclear states namely Pakistan and India are not cognizant of the rapid nuclearization of the region. This factor is adversely affecting the security, stability and strategic equilibrium in the region. Empirically speaking the established record for the nuclear arsenals in South Asia is incorrect because in all aspects of nuclearization India is 25 years ahead of Pakistan. India started construction of reprocessing plant in 1959 and it was inaugurated in 1964. Even before having a functioning reactor, India had a reprocessing plant. At that time Pakistan did not have even a single research or power reactor from which it was producing plutonium. The question arises what was India's priority? Was it a peaceful nuclear program or preparation for nuclear weapons development without announcement? India integrated its civilian nuclear program with the military program for production of plutonium. It is significant to note that plutonium in many cases is not under safeguards. Having repossessing plants, India will convert the spent fuel into plutonium and use it for manufacturing weapons without being held accountable under the IAEA

safeguards. In 1956, Dr. Homi J. Bhabha, India's first technical father of the nuclear program rejected the full scope safeguards. He said "International full scope safeguards are actually a means to put newly born babies into chains while the criminals are allowed to roam free." He was referring to vertical proliferation encouraged by NPT which discouraged horizontal proliferation.

He highlighted that India's great power ambitions and capabilities at its disposal were adversely affecting the regional security, strategic stability and deterrence stability in South Asia. He stated that India has impressive economy which allows it to have an influence over the foreign policy of others countries, especially small states of South Asia, but India lacks the strategic capabilities of a great power. There is significant nuclear, strategic and conventional military capability imbalance between India and Pakistan. India is acting as a great power beyond its capacity to influence the events of the world politics. At the end, while discussing the politics of NSG, he said India has not fully met the requirements of waiver given to it in the year 2008.India doesn't follow the standard requirement to separate its civilian and military nuclear plants and there is no clear computable version to show how much weapon grade material India possesses in military and nuclear field. Talking about categories of India's nuclear program he said India has:

1. Civilian safeguarded Fissile Material
2. Civilian unsafeguarded Fissile Material
3. And unsafeguarded military program

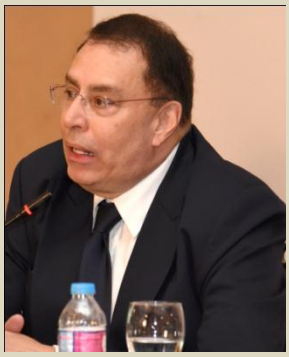
He added that India specific safeguard by IAEA, Indo-US strategic co-operation and the assistance given to India by United States under the nuclear deal and strategic partnership hardly influences China but it undermines Pakistan's security. India- US partnership is more applicable on Pakistan than China.

After his welcome and introductory remarks, the next speaker, Ms. Maimuna Ashraf presented a primer on "Nuclear Weapons and Ballistic/Cruise Missile Capabilities in South Asia". Various charts were presented to show the pattern, type and capabilities possessed and

tested by both India and Pakistan. During the presentation, she highlighted the pattern of incorporation of new technologies in missiles that hints towards the future trends, strategies and aspirations. While discussing low-yield or tactical nuclear weapons, she added that the debate about the TNWs in South Asian periphery started after flight testing of Nasr conducted by Pakistan in 2011. Other than Nasr, Pakistan has Hatf-IA (100 km) & and Abdali (180 km) missiles that confer tactical capability. On the other hand, India is working on Pinaka Guided (60 km) rockets that will be a tactical asset after Prahaar (150 km) and will provide better reaction time than liquid fuelled Prithvi-I. India is also working on another tactical weapon "parlay" which is under development. Although India tested Prahaar after few months Pakistan tested Nasr and developing more tactical nukes yet the debate remains muted about India's TNWs.

Ms. Ashraf also provided the details about short-range, medium range and intermediate range ballistic missiles. She added that until mid-2000s India and Pakistan developed medium range ballistic missiles to operationalize strategic deterrence. However since 2005 the ranges of missiles being tested by India and Pakistan started to diverge. India focused on Agni variants of medium and inter-mediate range while the tests conducted by Pakistan were of medium range. Talking about ICBM in South Asia, she highlighted that recently the successful testing of Agni-V ranked India among exclusive states possessing ICBMs. The missile's range surpassing 5000kms hints at its' ambitions beyond Pakistan. The significant aspect of this development is the incorporation of technologies that include cannisterization, MIRVing, depressed trajectory and in-built components for anti-satellite capabilities. These technologies improve missile readiness level and war-fighting capabilities. While concluding she added that based on open source credible information, India conducted approx. 160 ballistic/cruise missile tests while Pakistan carried out 76. India's technological development within just one year of joining the MTCR is striking, and membership in an elite nuclear cartel like the NSG would further expedite this process. Yet even if India stays out of the NSG, the MTCR still allows for significant improvement in India's missile program. Whereas the recent report of Belfer Center titled "India's Nuclear Exceptionalism" by Dr. Mansoor Ahmed reveals that India's unsafeguarded stockpiles have military potential, resultantly its fissile material production, reprocessing and enrichment capacity to produce more weapons is steadily increasing in size and efficiency.

The next speaker Dr. Tariq Rauf gave his perspective on "Nonproliferation Regime and Politics of NSG". He stated that the International Atomic Energy Agency (IAEA) which was established in 1957 provides its members the option to decide the extent to which their nuclear program should be covered under IAEA safeguards. With entry into force of Nuclear Non- Proliferation Treaty (NPT) in 1970, IAEA got the mandate for monitoring the nuclear fuel cycle of the Non-Nuclear Weapon States (NNWS) [party to the NPT] in entirety. Therefore in 1970s, IAEA moved from its pre-NPT to NPT safeguards system. Safeguards that apply to Non-NPT states such as Pakistan are the pre-NPT safeguards covered under the document for the INFCIRC/66/ Rev.2. These safeguards are in perpetuity which means that the facility and the nuclear material placed under INFCIRC/66/ Rev.2 will remain under these safeguards until the facility is dismantled or converted into installation is no longer used for nuclear related activities. Same goes for the nuclear material i.e. as long as it is useful for a nuclear purpose, safeguards will continue. NPT safeguards remain enforced as long as the state is a party to the NPT. He gave the example of North Korean withdrawal from NPT in January 2003 that also led to the cessation of NPT safeguard agreement. No Nuclear Weapon State (NWS) forced North Korea for compliance with pre-NPT safeguards i.e. INFCIRC/66/Rev.2. He mentioned this example because after Indo-US nuclear deal and signing of umbrella safeguard agreement that India concluded with the IAEA, and the exemption that India got from Nuclear Suppliers Group (NSG), India argues that being a non-NPT state it had the freedom to decide which part of its nuclear program can be brought under safeguards. They argue it is India rather than IAEA that will specify the list of facilities that it wanted to place under the safeguards.



He said within IAEA, Verification and Security Policy Coordination Office was responsible for the negotiations of umbrella safeguards agreement (after Indo-US nuclear agreement as well as NSG waiver) for bringing all under construction and future civilian-nuclear facilities of India under IAEA safeguards. The responsibility for not putting certain portions of Indian civilian nuclear activities under IAEA safeguards rests with IAEA Board of Governors. He said it's the IAEA Board of Governess that has the authority to approve or reject all safeguard agreements negotiated by IAEA with any state. Only after approval of the agreement,

IAEA can act as implanting agency and can influence the state to change domestic requirements to meet the legal agreement.

In 2005, US National Security Advisor Condoleezza Rice asked the IAEA Director General for IAEA's support for the Indo-US nuclear deal. The IAEA Director General couldn't fight the most powerful member state that provided more than 25% of the agency's budget and he agreed to support the Indo-US nuclear deal. India was also required to conclude Additional Protocol (AP). He said there are three different provisions of additional protocol. *First,* Board of Governors decided in April 1997 that NNWS [party to that NPT] have to implement the entirety of AP without any changes. *Secondly*, NWS can pick and choose those matters from the AP that contribute to Non-proliferation. *Third,* the Non-NPT states can also select the elements of AP that contribute to Non-proliferation. India followed the AP on the lines adopted by China and Russia hence IAEA gets the zero AP authority. About Nuclear Suppliers Group (NSG) he said that NSG has never been recognized by NPT states as a legitimate export control mechanism. It is the Zangger Committee (ZAC) established in 1971 that has the mandate to interpret article 3 of NPT for defining what is meant by special fissionable material and technology related to production of special fissionable material that needs to be controlled. India carried out so called Peaceful Nuclear Explosion (PNE) in 1974 by violating the guarantees given to Canada and the US that provided it with fissionable material. ZAC legitimacy is recognized but Non-Aligned Movement (NAM) countries have never recognized the legitimacy of the NSG.

These remarks were followed by a Discussion and Question & Answer session:

Dr. Zafar Nawaz Jaspal, Associate Professor, SPIR, Quaid-i-Azam University, asked the panel to elaborate on the full scope safeguards under the IAEA safeguards. Usually the states are likely to go for full scale safeguards; if Pakistan becomes the member of NSG it is Pakistan will follow full scale safeguards? And If Canada or any other country gives nuclear technology to India; it will be violation of that article or not and how states can address these challenges? Dr. Rauf said that technically speaking any new nuclear supply agreement concluded

after 1995 does not have full scope safeguards. NPT states can only conclude supply agreements with non-nuclear states, because nuclear weapon states [party to NPT] also do not have full scope safeguards neither do the non-NPT states. In this regard, this is very specific provision reiterated in the year 2000 as well. He also added that in several nuclear free zones treaties, like South Pacific Nuclear Free Zone (SPNFZ) of which Australia is the member, and Central Asian Nuclear Weapon Free Zone (CANWFZ) of which Kazakhstan is member, both Australia and Kazakhstan are suppliers of nuclear materials. So it could become contrary to the provisions of SPNFZ and CANWFZ if nuclear cooperation is provided to a country that does not have full scope safeguards. Dr. Jaspal further added to the discussion that in case of Indo-Japan nuclear cooperation agreement, Japan is violating this agreement. Dr. Rauf responded that any NPT state that is entering into a new nuclear supply agreement without full scope safeguards is not abided by the 1995 and 2000 final draft. Some countries had maintained that it was the continuation of an old agreement and the case was made that supply of power reactors from China to Pakistan is covered under an old agreement. Same argument is laid by Russia for the supply of reactors to India. Some states accept that argument while others don't.

Dr. Adil Sultan commented that Indian interpretation of 'clean waiver' is that India is eligible for nuclear trade because of 2008 NSG waiver. India justifies its stance about nuclear trade without having comprehensive safeguards. India claims that 'clean waiver' also mean that India is eligible for nuclear trade, enrichment and reprocessing technologies. Such claims are making the issue more sensitive. In June 2011, during the plenary meeting the NSG revised its guidelines that non-NPT state would not be eligible for enrichment and reprocessing technologies. This became a thorny issue between United States and India. Condoleezza Rice, the then United States (US) Secretary of State said that "we clarified this position to India while negotiating", whereas Indian Prime Minister in a statement delivered in parliament that "our understanding is that it's a clean waiver and we are entitled for enrichment and reprocessing technologies". Dr. Sultan added that this remains an outstanding issue where different NSG member states have different positions on it. Being an expert on the issue, he asked Dr. Rauf about his comments and interpretation of the 'clean waiver'? Dr. Rauf added that the NSG can give a clean waiver be its white waiver or yellow

waiver, that is NSG business. It is not sanctified by the larger nonproliferation regime. Many NAM countries like South Africa, Egypt, Brazil, Iran and others at NPT fora have criticized the NSG sanctions for India. They have criticized the cooperation between NPT states and Non-NPT states without joining NPT and having comprehensive safeguards. This is an internal discussion among the NSG community; their discussions are secret and not open unlike Zangger Committee. There are still many significant reluctant sates among NSG members regarding provision of enrichment and reprocessing technologies to India. He wondered who will provide commercial enrichment and reprocessing technologies to India or any other non-NPT state. The US cannot get its own centrifuges to run; therefore they have asked Enrichment Technology Company (ETC) in partnership URENCO to bring centrifuge manufacturing plants to the US. So, the European enrichment technology will be used for civilian nuclear power plants in the US. Americans have world's largest centrifuge, 10-meter-high, they have not been able to make it work. There is URENCO partnership or the Russian which could eventually supply enrichment and reprocessing to India. He stated that to a certain extent Chinese are also dependent on Russian centrifuges. Japan does not have commercial centrifuge export capability. It is significant to note that there are very few vendors of enrichment and reprocessing technology. It is unlikely that Russia would sell reprocessing technology. He added that there is around half a million tons of nuclear spent fuel from civil nuclear fuel cycle in various countries. This presents significant market opportunity for AREVA and other consortia that reprocess the fuel and sell it in the market. Such consortium is now looking for various ways for making money by relieving nuclear facility operators from the burden of storing and looking after used nuclear fuel, which is normally stored on site. This discussion on India or any other country buying enrichment and reprocessing technologies is only a theoretical discussion yet and he personally does not see any sales coming up in near future. Russians don't want to undercut the market because they want to be full service provider by building reactor, providing the fuel and then taking away the spent fuel. About Indian nuclear program, he said if we go back to its start, initial Indian nuclear reactors are actually illegal copies of CANDU nuclear reactors. He said that nuclear construction market is shrinking around the world and nuclear industry as a whole is facing problems. Dr. Ruaf said that personally he would be very concerned about the transfer of enrichment and reprocessing technologies to India or any other country.

Syed Muhammad Ali, Senior Research Fellow at CISS asked Dr. Rauf about his independent assessment Pakistan's case for NSG membership. He asked what specific steps could be recommended to Pakistan which should be considered to improve the prospects of its membership. Dr. Rauf shared that he has been a part of US-Pakistan Nuclear Working Group and has given a number of presentations for Pakistan's case for the NSG membership. He stated that Pakistan's credentials are stronger than India's but for variety of reasons more countries seem favorably disposed to India because of the possibility of making more money through nuclear and non-nuclear sales where as they see Pakistan as a country that does not have enough money and possess only a small market. He highlighted that India does not have an independent nuclear regulator while Pakistan has one named as Pakistan Nuclear Regulatory Authority (PNRA).Dr. Rauf further added that Pakistan is a country that has been penalized more by the NSG. Pakistan has been denied access to critical parts for its civilian nuclear plants that had nothing to do with military program. He said that politics of member states is the key issue in the NSG. People still remember clandestine nuclear supply network which although involved individuals and entities from more than 30 countries, nonetheless its Pakistan that has borne the brunt of criticism. There is also criticism about Pakistan's position on Fissile Material Cut-off Treaty (FMCT) and Comprehensive Nuclear Test Ban Treaty (CTBT) despite the fact that Pakistan negotiated and voted for CTBT and holds permanent observer position. He said that in his personal views Pakistan needed to change its narrative on these issues as still there is insistence that delaying on FMCT suits Pakistan. He said that in the past the delay might have suited Pakistan's national interest but now the world politics has changed and Pakistan could reformulate its position without compromising on its principles and national interest.

Session II:

The first speaker for the session**,** Dr. Rizwana K. Abbasi articulated her views on "Role of Tactical Nuclear Weapons and Deterrence Stability in South Asia." While discussing the historical significance of Tactical Nuclear Weapon (TNW), Dr. Abbasi presented the role of TNWs during the

Cold War. She stated that during the Cold War, Nuclear Weapons remained at the center of US strategy and its allied nations. Dr. Abassi asked couple of questions as to why do Pakistan induct this technology in its inventory, what was its purpose and how long Pakistan would rely on this weapon. She said that in the backdrop of India's offensive war waging conventional military Cold Start Doctrine (CSD), with the aim to fight limited war to achieve its political and military objectives under the nuclear overhead, Pakistan was compel to include TNWs and low yield weapons to its inventory to avoid such eventuality.

Pakistan decided to adopt counter measures strategy in response to the Indian war fighting aggressive posture in the backdrop of growing conventional asymmetry viz-a-viz India. Pakistan's development of short range Nasr missile is not aimed at waging a limited war against India but to prepare for such an eventuality signaling to adversary for strong and punitive retaliation and reducing the probability of any kind of aggression or limited war against Pakistan. More so, Nasr missile has proven cost effective tool for Pakistan against conventionally strong India. Aim of inclusion of this strategic platform in existing inventory was to increase the value of Pakistan's deterrent force. The short range Nasr missile is a quick response system to deter the evolving threat at limited level. Pakistan possesses highly modest comprehensive nuclear weapon. Nasr missile is part of Pakistan's all range of capacities directed against Indian pressure from strategic to sub-strategic level to prevent war and make the region peaceful, secure and stable. TNWs have taken away Pakistan's stress in terms of Indian brinkmanship, bullying and punitive action in any kind of major aggression in the conventional run. The argument holds that the nuclear learning in Pakistan has rapidly enhanced and Pakistan will adopt all range of counter measure strategies and capabilities as technology evolves.

There exist some global strategic reservations on predicament of "use it or lose it" dilemma with regards to TNWs on the issue of command and control. However Pakistan's centralized Command and Control and non-deployment of TNWs due to geographical continuity and proximity between India and Pakistan immediately rules out these risks. Dr. Abbasi added that Pakistan's weapons neither will be deployed in forward locations nor power will be delegated to the field commanders unless India presses on Pakistan to behave in that particular

direction. Pakistan has highlighted that these weapons will be used as a last resort unlike the US strategy of first resort during the Cold War to counter Soviet proxies in Western Europe.

Additionally, the political consideration with regards to Nasr missile development remains consistent with Pakistan's credible Minimal Deterrence posture. Nasr missile is defensive system, designed to uphold deterrence and strategic stability in South Asia and prevent the image of limited war. Conceptually, the development of Nasr missile as a low yield battle field weapon therefore can be seen as an instrument for peace in South Asia. It has stabilized deterrence that was disrupted by Indian short range missile technology. Therefore developing the Nasr missile, specific to India's development of battle field nuclear weapons in Cold Start Doctrine, becomes part of Pakistan's deterrent capability, without which its deterrence capability could be completely undermined.

While concluding Dr. Abbasi stated that Nasr missile development doesn't just imply numerical expansion in deterrent forces of Pakistan, it falls within the broader contours of Pakistan's declarations on credible Minimum Deterrence. The increase within Pakistan's deterrent capability would be in proportion to India's land expansion. This may however, not exactly be within the parameters of weapon to weapon competitive strategy practiced during the Cold War. Whether Pakistan would practice such deterrence or follow the ready arsenals strategy for some of its deterrence forces would depend upon the prevailing strategic environment in South Asian region.

Second speaker for the session Dr. Andrew Futter highlighted the "Ballistic Missile Defense in South Asia: Prospects and Problems". He said that the Ballistic Missile Defense (BMD) technologies are proliferating in South Asia and becoming increasingly important components of deterrence and defense thinking like in the other parts of the world .For a long time such systems were seen as unworkable and prohibitively expensive, but now the technology has improved and the role has changed. However, questions still remain about their impact on global and bilateral nuclear relations. In particular, India is developing and planning to deploy various defensive systems,

and this has been seen as a major threat to stability in the South Asian region, raising prospects for arms racing and concerns for a secure Pakistani nuclear deterrence. However, this challenge is nuanced and needs to be unpacked if it is to be properly understood.

While discussing the basics and background BMD he stated that for many years the BMD was an America-centric idea (although Russia also pursued and deployed BMD systems). In the early years of the Cold War both East and West sought BMD deployments (principally those based on nuclear explosions for interception). By the mid-1960s there was a growing recognition that defensive technologies were helping drive the arms race and that the point had been reached where defense had essentially become too costly if not impossible. This was the beginning of strategic stability through Mutually Assured Destruction (MAD). A direct result was the Anti-Ballistic Missile (ABM) Treaty of 1972 which significantly limited the deployment of strategic ABM systems. ABM laid the foundations for the era of arms control that would follow. Despite the ABM treaty the idea of BMD never really went away during the Cold War. When many academics and policy makers talk about BMD they often fail to consider the essential differences between systems, their respective capabilities and strategic intentions. For example, defense against Intercontinental Ballistic Missiles (ICBM's) travelling through space is a much harder task than defending against a short range ballistic (or cruise) missile, which travels much slower. Likewise, point defense (i.e. defense of a small area such as a command center or missile silo) is – at least in theory - much easier than national defense or strategic defense (i.e. protecting big cities and the civilian population). Clearly, a limited defense against a very small scale attack (and perhaps accidental launch) is also likely to be easier than a nation-wide defense against an attack involving lots of sophisticated missiles and warheads. Lastly, many BMD systems are designed to protect against conventional missile threats (albeit that some will have dual use capabilities).Quite often in the BMD story these differences are lumped together as one – the purported success of the Patriot system during the First Gulf war being a good example. This is why, it is important to unpack Indian BMD developments. There are a few key things to consider with the Indian BMD system in perspective; the key elements are as follows:

(1) Indian scientists and engineers seem to be particularly influential in impacting the BMD debate and various deployment plans which suggests that the BMD is as much about technological maturity and status as it is about threats.

(2) It isn't clear exactly what threat this system is or might be designed against i.e. large scale attack, a warning shot, accidental/unauthorized launch etc., what it should protect, and for that matter who to protect against (China looms large in Indian defense planning).

(3) Accordingly, it remains unclear what type of system India will deploy (and for that matter what it will be willing to pay for).

He further raised a pertinent question as to what would a limited Indian BMD system mean for strategic stability of the region? The answer can be understood by looking into four significant factors: *First,* the geography of South Asia will make any defensive system very hard due to time pressure. A missile launched from either Russia or the US takes around 30 minutes to cross the North Pole. A missile fired in South Asia will likely take a matter of minutes (depending on target and missile type). This will place enormous strains on Indian command and control systems (which may even have to be automated).*Second,* perhaps somewhat paradoxically, there may be some benefit to both sides in a limited Indian (and later perhaps future Pakistani) BMD system – it would buy time should a small-scale launch ever happen by accident or unauthorized third party, thus minimizing pressures to act. It might also make retention of a no first use doctrine more likely (though debatable).*Thirdly,* there is still no good protection against cruise missiles, and missile attacks from the sea would create more problems for defense. BMD is unlikely to be a panacea. *Fourthly,* it is important to recognize that this isn't simply a Pakistan-India issue. One must not forget the role that China plays in this context particularly for Indian strategic decision making. So, as a result Pakistan may not necessarily need to see Indian BMD an immediate and direct threat (at least not for strategic reasons). However it may still require greater diversity in nuclear systems.

Dr. Futter further said that with regards to future prospects of BMD in South Asia it appears that the missile defense is likely to play an increasingly important role in the international nuclear politics in the years ahead. But this does not automatically mean less stability. This is particularly the case in South Asia where the nature and shape of the proposed Indian system may actually not be as destabilizing as many currently fear it to be. However, as with all nuclear

politics, perceptions and particularly the specter of the future loom large. It is not necessarily what is happening now but where these might go in the medium to long term that looms large in planners' minds. Thus, a certain level of transparency and trust building is a must.

Next speaker Prof. Christoph Bluth shed light on "Nuclear Deterrence in South Asia and Potential Threats to Strategic Stability". He stated that generally strategic stability is considered as a situation in which nuclear deterrence is effective and in which two protagonists do not attempt to engage in first strike. Similarly the survivable second strike capability is the factor that damages the strategic stability such as it did during the Cold War, simultaneously the strategic relationship between the US and USSR can be defined through many characteristics. One factor was that both states possessed large number of survivable strategic nuclear arsenals through the deployment of submarine. At the same time there was great geographic distance between the two rivals which meant that if the war happened in Europe this could have been not the same as the strategic nuclear strike in the South Asia, because in Europe the possibility of controlling the nuclear escalation exist. Many of these characteristics are not present in South Asia. There is very close geographic proximity of the two South Asian nuclear powers. This factor of close geographic proximity in South Asia present that the nuclear strike will happen in very short order. Although some degree of second strike capability is quite hard to execute the complete first nuclear strike, nevertheless role of nuclear capability may be not as secure as it was during Cold War era.

The structure of nuclear arsenals is configured around minimum deterrence. The two major problems regarding the strategic stability in South Asia are: asymmetry of delivery capabilities and strategic geography in South Asia. Pakistan doesn't have a strong capability to strike whole of Indian Territory. Secondly, the region is persistently embroiled in underlying conflicts. Third, India's ambitious efforts to create a strategic triad which would provide a secure second strike capability coupled with India's Ballistic Missile Defense (BMD).

He further added that the purpose of Pakistan's Nuclear Doctrine is to deter a nuclear or conventional attack. Basic elements of Pakistan's nuclear doctrine are:

- Nuclear Weapons are said to be weapons of last resort, and
- Pakistan states that it wants to adopt Minimum deterrence posture,
- Pakistan has not adopted a no-first-use policy but there is possibility of massive retaliation against Indian cities if there is an attack on Pakistan.

While defining the dilemma of conventional and nuclear military imbalance between India and Pakistan, Dr. Bluth stated that the dilemma is that Pakistan possesses TNWs to counter conventional attack from India. It is quite questionable that to what extent limited nuclear war option exists for Pakistan and whether it will be ready to use TNWs on its territory to counter Indian massive conventional attack.

Dr. Bluth prompted as to how do India's nuclear forces affect Pakistan's nuclear decision-making? He stated that India proclaims the No-first-use policy which is often questioned by critiques. It is also committed to employ credible minimum deterrent but the plans India has for expansion of its nuclear capabilities can question the credibility of its claim for minimal deterrence. Impact of nuclear weapon on conflict between India and Pakistan seems more ambiguous. After nuclearization, significant increase in military crises has been witnessed. The analysts posit with regards to Kargil Crisis that there was a strategic space for the use of force in the presence of nuclear deterrence. He stated that there is an absence of strategic stability in South Asia as the conventionally weaker state is seeking to engage in limited conflict. The stability-instability paradox does not apply to the Indo-Pak relationship which is based on strategic misperception. While concluding he stated that the strategic nuclear relationship is unstable and the strategic arm policies are being shaped by the strategic cultures and resource limitations. Ongoing trends point to an increase in strategic instability in the region as factor of geography and lack of early warning capabilities pose a risk of accidental nuclear war.

There were two speakers for the final topic covered in the seminar. Dr. Zafar Khan while presenting an "overview of strategic stability of South Asia" stated that with the induction of nuclear weapons in South Asian, there hasn't been any major fight between India and Pakistan. It is mainly

because of the fear of nuclear weapons use. This fear existed during the Cold War era between the Soviet Union and the US that in turn made the leadership of the these two Cold War nuclear powers realize that there is no nuclear victory and these deadly weapons should never be used when it is absolutely not needed. However, challenges to strategic stability in South Asia continue to exist. The balance is needed to sustain stability between the two South Asian nuclear states e.g. the rationale for maintaining strategic stability in South Asia is imperative to understand that if one side (potentially, in this case India) develops warlike postures through its military Cold Start Doctrine (CSD) aiming at waging a limited war against parts of Pakistan under the nuclear hang, the other side (in this case Pakistan) would produce effective countermeasures to defend its territorial integrity and sovereignty, thereby, retaining the strategic stability so that the risk of war both major or limited is averted. Arguably, strategic stability, if sustained in South Asia, contributes the following essentials: One, it prevents major wars. Two, it creates caution between the leadership of both sides. Three, it averts the risk of escalation from crisis to a potential danger of nuclear use. Four, it promotes the importance of Strategic Restraint Regime Pakistan proposed to India more than a decade ago. Unfortunately, India has missed the boat by rejecting such a proposal and since then India has embarked upon a number of expensive mega projects both within the conventional and nuclear domains while putting pressure on Pakistan. This in turn pulls Pakistan into a vicious cycle of arms race. Pakistan may not be interested to get involved in such an arms race in the first place. If India does this; Pakistan due to its strategic compulsion may produce effective measures to plug the gaps where necessary. However, Pakistan would need to take judicious strategic measures to prevent itself from the traps of India's grand nuclear strategy that may aim at exhausting Pakistan in such a race. Dr. Zafar Khan concluded by saying that given the fear of this strategic eventuality, it is pertinent to know how each nuclear weapon state rationalizes the concept of strategic stability. The more a nuclear weapon state understands the concept and stability associated with it, the more it will become cautious of unnecessary strategic initiatives as part of nuclear policy and the more it could prevent itself from nuclear assertiveness.

Final speaker Brig. Zahir H. Kazmi briefly discussed the Strategic Stability in South Asia. He stated that the strategic stability between India and Pakistan is a condition in which both states usually preserve peace, prevent crisis escalation and resolve disputes to reduce risk of

war especially a nuclear war. Whereas deterrence stability is important constituent of strategic stability and both are synonymous. According to Western analysts, strategic stability is the existence of condition that makes the war between major powers unlikely and it depends on mutual trust, shared values and common objectives which can enhance the strategic stability. Most important requisite of strategic stability is mutual convention that using military force will lead to an unacceptable retaliatory damage.

Brig. Kazmi endorsed Prof. Bluth's point of view that at the moment South Asia presents an unstable situation. The unresolved bilateral conflicts are the core issues behind the prevalent unstable situation. In this regard Kashmir dispute is mother of all problems between India and Pakistan. He maintained that British are primarily responsible for this as they gave Pakistan pyrrhic independence. He said that as far as the strategic paradigm between two states are concerned; India and Pakistan hold different approaches. India always perceives China as a threat, whereas for Pakistan, India is a clear danger and a threat which has forced Pakistan to develop a credible deterrent posture. India's strategic paradigm is regional and global revisionist. India seeks global status and regional hegemony. For this purpose India built the nuclear weapon. On the other hand Pakistan pursues sovereign equality and peaceful co-existence with India.

In India, nuclear weapon played an unlimited and central role in the strategic thinking. Whereas Pakistan's strategic thinking has been influenced by India's doctrinal and force posture choices. Soon the whole, Pakistan has tried to maintain a balance with proportionate and restraint responses to a dynamic threat. Such paradigms affect strategic stability in unique fashion in which diplomacy takes a back seat and third party role has diminished because of global realignment and independent foreign policies of the states. While identifying the factors of instability in the region, he stated that the first factor of instability is *forces asymmetry*. Pakistan's defense budget is $1/7^{th}$ of India's. This shows that Pakistan exercises the minimality and restraint. The gap between defense spending is not because of less resources but it is a considered choice of Pakistan to keep defense budget on a low tune. The second factor is the *nuclear doctrines*. The new debate on India's no-first-use and singling the first strike has made

Pakistan to take both declared and undeclared postures of Indian nuclear doctrine to maintain stability in the region. More factors dealing with regional strategic thinking are Indian's *strategic thinking and propensity* to seek limited conventional and sub-conventional war. To deal with limited conventional war, Pakistan developed short ranged ballistic missiles and Pakistan does not call them TNWs, tall nuclear weapons are strategic in nature. Whereas sub-conventional war includes that how India is using terrorism as a tool and instigating insurgency in Pakistan, Brig. Kazmi further highlighted that the ballistic missile shield has the ability to pose negative impact on the strategic stability as they can give a false sense of security and makes deterrence quite complex. Additionally, Indian development of space militarization, cyber defense domain, Indian strategic culture and empirical evidences of bilateral relations have collectively affected the regional stability.

The talks were followed by interactive discussion and question answer session.

Dr. Shahid Bukhari, Senior Visiting Research Fellow, SVI pointed out to Professor Bluth and Dr. Futter that they have both talked about the strategic stability in the region but didn't discuss the international strategic environment which is dominated by the India-US collaboration that aims to contain China. He said that it is significant to note that regional strategic stability cannot be isolated from international strategic environment. In this regard it is imperative for the western scholars to take into consideration the other dimension of the region as well as India-US nuclear agreement which is responsible for the instability in the region.

Dr. Zafar Nawaz Jaspal, Associate professor at School of Politics and International Relations (SPIR-QAU) stated that India has a peculiarly offensive mindset where it claims to have launched the surgical strike against Pakistan. It is first time in the nuclear history that any nuclear state announced that it had conducted a surgical strike against its strategic adversary. He asked Prof. Bluth of his views on the strategic stability in south Asia especially when India possess this kind of mindset. Prof. Christoph Bluth responded that with regards to surgical strike question, there are two kind of possible misperceptions: on one

hand India thinks it has military superiority in both conventional and nuclear realms over Pakistan and on the other hand, in Pakistan it is general perception that in a conventional conflict, perhaps India wouldn't retaliate if Pakistan uses nuclear weapons in a tactical strike. Both sides on their part are taking each other seriously enough. Indian strategists think that they are a super-power and Pakistan cannot match them.

Col. Nasir Hafeez added that two important things: perception and rationality have been discussed while defining strategic stability, but both elements are cultural and not grounded in the Western capitalist and materialistic aspect whereas in India these elements are based on spirituality and people's belief in life after death. He asked, what is the definition of deterrence in the framework of rationality based on spirituality? Prof. Christoph Bluth responded that the issues of nuclear deterrence should be dealt in diplomatic and strategic manner rather than on the basis of spirituality. Additionally, Col. Nasir Hafeez stated that India explicitly claims that if there is a terrorist attack on the Indian soil, it will be hard to control the public reaction. India will be compelled to use force against Pakistan. He asked what if Pakistan finds a credible evidence of India's terrorist activities in Pakistan; would Pakistan also come under public pressure and use the force against India? Brig. Kazmi replied, that the existing evidence suggests that since last 50 years Pakistan has applied extreme restraint in such situations. Pakistan will only go for the use of force under extreme conditions.

Mr. Syed Saddam Hussain from National Defense University asked if the NSG membership is sought for nuclear technological cooperation to promote international security, enhancing strategic stability and preventing arms race. In response to this question Prof. Christoph Bluth answered that the issue of sharing nuclear technologies is quite a tricky matter because these are sophisticated technologies that can be used for both purposes. Therefore a technology control mechanism and mechanism for the transfer of technology should be there. There can be the case for certain types of technologies for example to secure nuclear weapons to make it more difficult to use

nuclear arsenal by the states that possess it. Secondly, nuclear weapon states should have early warning technology systems. In this sense some level of technological sharing could be stabilizing.

At the end, Dr. Zafar Iqbal Cheema summed up all the presentations and thanked the distinguished speakers and audience. Discussing the perceptions about strategic stability, Dr. Cheema said that there is always a very clear divide between western perspective and south Asia perspective about strategic stability of South Asia. All western narratives tend to say that nuclear weapon development in South Asia contributes to strategic instability. Whereas South Asian perspective is that development of nuclear weapon is source of strategic stability in the region. So, phenomena of Strategic Stability are more kind of cultural element based on the national interest rather than rational argument and logic. Dr. Cheema agreed with Dr. Khan while discussing strategic stability in South Asia that the development of Nuclear weapon is source of stability in South Asia. He maintained that since the development of nuclear weapon in South Asia, no war occurred between Pakistan and India. Consequently, Pakistan intends to compensate with India's great conventional asymmetry with the development of nuclear weapon. At the end Dr. Cheema said that there is no notion of nuclear superiority or inferiority in nuclear sphere, if the both protagonist have second strike capability and ability to sufficiently damage each other. He expressed his profound gratitude to the SVI team that played its part in organization of the conference. He also acknowledged and thanked guest speakers especially the British guests for their participation and insightful talks.