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PROSPECTS OF ENGAGING INDIA AND PAKISTAN IN NUCLEAR ARMS LIMITATIONS

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and Sergey Oznobishchev

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Foreword by Academician Alexander A. Dynkin at the Conference "Prospects of Engaging India and Pakistan in Nuclear Arms Limitations"

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Prospects of Engaging India and Pakistan in Nuclear Arms Limitations

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FOREWORD

by Academician Alexander A. Dynkin, Director of IMEMO RAN

Dear participants in the Conference,

I would like to thank you for answering our invitation to partake in today's Conference. Special thanks goes to Ambassador Sheel Kant Sharma, an authoritative Indian security expert well known to all of the international strategic community, for kindly accepting our invitation and making a presentation at today's meeting. I would also like to express my gratitude to the officials of the embassies of India, Pakistan and other countries to Moscow for joining us today.

The topic of our today's discussion is "The Prospects of Engaging India and Pakistan in Nuclear Arms Limitation". Let me remind you that this is the last of the three conferences scheduled for 2012 as part of the second round of the joint project by IMEMO RAN and the US Nuclear Threat Initiative (NTI). As you know, NTI is co-chaired by the world-renowned US political figures Ted Turner and Senator Sam Nunn.

At the moment the US and Russia differ greatly on matters of nuclear disarmament. However, they do have a common ground, as both countries recognize the need for expanding the list of participants in the nuclear disarmament process. After the two decades of deep nuclear arms reductions by the US and Russia, time has come to raise the issue of engaging the third nuclear-weapon states in the process. This is the assumption underlying this year's IMEMO-NTI project.

The two previous conferences closely examined the issues of bringing the UK, France and China to participate in nuclear disarmament. The analysis yielded results that proved quite interesting and led to a heated discussion among experts and policy-makers. Many issues are to be further studied in greater detail. The outcome of the conferences was published in two brochures, each in English and Russian languages.

Our first conclusion was that the military and strategic relations among the existing nine nuclear-weapon states (including

North Korea) are far from homogenous, with mutual nuclear deterrence — on which the nuclear arms limitations and reductions by the USSR/Russia and the US are based — being an exception rather than a rule. Save for the US and Russia one can hardly find two other nuclear-weapon states tied by this type of relations.

However, the only exception are India and Pakistan. Although their relations form a military-strategic basis, which is relatively conducive to arms control, they are also burdened by enormous political obstacles preventing the two countries from engaging in the dialogue on arms reduction. Those obstacles include the factor of China, the third party in this regional nuclear balance.

To put it shortly, this is what makes our today's topic so unique, complex and important. I hope that this will encourage us to develop a deeper understanding of the issue and advance towards its solution.

May I wish all the participants in the conference challenging and fruitful work in our Institute.

SUMMARY

This research based on the outcome of the conference hosted by IMEMO RAN, assesses the prospects and possibilities of engaging India and Pakistan in nuclear arms limitations.

The very fact that these two countries have acquired and developed nuclear weapons poses a challenge to the nuclear non-proliferation regime and vividly illustrates the crisis this regime is currently experiencing. This in fact is tantamount to the escalation of arms race both between India and Pakistan and in South Asia in general, and the increasing risk of use of nuclear weapons in this region.

In this paper, the experts of renown analyze in great detail the internal and external factors pushing the two countries to opt for nuclear weapons. Indian and Pakistani contributors explain their respective countries' reasoning for the need to develop nuclear capabilities. Russian experts in the issues of this region review in a careful manner the features of the two sides' nuclear programmes and their development, as well as the two countries' perception of the role of nuclear weapons and the concepts governing its use.

There is every reason to believe that at this stage India and Pakistan far from seek agreements on nuclear arms limitation, not to mention nuclear arms reduction. Their recurrent tensions that can ultimately lead to the use of nuclear weapons make it imperative that the international community take urgent steps to thwart New Delhi's and Islamabad's nuclear ambitions and enhance security in the region in general.

The brochure presents a number of practical recommendations on possible ways to engage India and Pakistan in nuclear arms limitations.

INTRODUCTION

The crisis of the non-proliferation regime, which has recently been one of the most pressing international security issues, has clearly manifested itself in South and South-East Asia. In addition to the North Korean and Iranian nuclear and missile programmes that have undermined the nuclear non-proliferation regime for many years now, international community is gravely concerned over the escalating nuclear missile standoff between India and Pakistan. Indeed, a new spot of nuclear missile arms race has emerged, posing a threat to regional and global security.

The situation is all the more complex, as there is a whole set of related issues inciting this arms race. Those include a simmering territorial dispute over Kashmir that has repeatedly caused armed clashed between India and Pakistan and can subsequently escalate and bring about the exchange of nuclear strikes. There has also been an increasingly urgent issue of terrorism that has lately been gradually transforming into an inter-state confrontation. Finally, there are religious differences, internal political instability in Pakistan, etc.

All of the above results in an extremely low level of cooperation in nuclear threat reduction and is further complicated by the lack of any significant body of treaties in this field. As if that was not enough, both India and Pakistan are facing the typical issues relating to the initial stages of development of nuclear capabilities. Their nuclear assets are high vulnerable at their location sites, their command and control and early warning systems lack efficiency, their official doctrines governing the role of nuclear weapons in national military strategies and rules of engagement are immature, ambiguous and are constantly changing.

Furthermore, the current general stagnation in the arms reduction and limitation process, the apathy and the changing tone of the US-Russian dialogue, their differences as to the “Arab spring” and the issues of Syria and Iran, as well as the diminishing influence of Moscow and Washington on New Delhi’s and Islamabad’s policy have not made things easier. On top of it, the leading powers are much more preoccupied by searching ways to overcome financial and economic crisis.

As a result, there is an obvious lack of incentives and possibilities for addressing the escalating nuclear missile standoff between India and Pakistan. Neither the leading nuclear powers, nor the international community in general have reached consensus on any conceptual and institutional solutions for this issue.

This brochure is based on the findings of the conference hosted by IMEMO RAN on October 18, 2012 as part of the joint IMEMO-NTI (Nuclear Threat Initiative, Inc.) project and aims at proposing certain practical recommendations to alleviate tension and settle the Indo-Pakistani nuclear missile confrontation.

1. THE ROLE OF NUCLEAR STATUS IN INDIA'S AND PAKISTAN'S FOREIGN AND DOMESTIC POLICY. RUSSIA'S PERSPECTIVE

Vyacheslav Trubnikov

October 20, 2012 marked the 50th anniversary of a key event in the modern history of relations between independent India and the People's Republic of China. Indian Armed Force suffered a crushing and what India still believes to be a humiliating defeat in a conflict with the People's Liberation Army of China in the deserted Himalayan region. The only thing that saved India from a complete defeat was the fact that in a month China unilaterally ceased fire and withdrew its troops to the positions that today are referred to as the Line of Actual Control. British rule had left young independent India (as well as Pakistan) a legacy of both the open wound of the partition, and the undemarcated northern border with Tibet, the McMahon Line and the McCartney-McDonald Line between whom and British-controlled India had never been mutually recognized as Sino-Indian border. The consequences of this territorial and border conflict still exist. What is more, it is them that divide the two countries most, impacting every aspect of India's and China's foreign, military and domestic policy.

In late 1950s India tried to solve the issue and restore the status quo in the Himalayas by means of the Forward Policy inherited from the British, that is by drawing its armed forces to the line it considered as its national border. However, China's smashing response demonstrated the inefficiency of that policy and made India see its neighbour in a completely different light, both as a competitor in the struggle for influence in the region, and a strong Asian military power necessitating adequate measures on the part of India in order to restore the strategic balance.

These particular developments were at the root of India's struggle to secure a nuclear status that started after China held it first test nuclear explosion in 1964. Having assessed the international environment Indian government concluded that there was nobody but India itself to ensure its

security. In fact, it even had a solid research capability for that purpose consisting of relevant research centers headed by world-famous Indian scientists such as nuclear physicist Homi J. Bhabha and the father of India's space programme Vikram Sarabhai. They founded leading India's research centers, the Atomic Energy Commission and Indian National Committee for Space Research both of which are still successfully functioning. These particular bodies enjoying extensive ties with the relevant institutions of the leading nuclear missile powers, previously USSR and now Russia, the US, the UK, have implemented the country's nuclear weapons and missiles programmes. India has built up its capacities by sending its specialists abroad to study in the leading universities and receive practical training in research institutes, such as the USSR's Intercosmos and the US NASA, and the Voronezh nuclear power plant in the USSR and subsequently Russia. To India's credit, it should be stressed that it has always had an impeccable record of a country that has never faced a single accusation of taking part in activities causing doubts in terms of nuclear missile proliferation. India has built up both its nuclear and missile capabilities through legitimate international cooperation and domestic efforts.

Nevertheless, the detonation of the first Indian "peaceful nuclear explosive device" in 1974 took the world community, especially the members of the so called "nuclear club" by surprise. No western intelligence service informed its government that Indira Gandhi's government had taken the relevant political decision. Neither did it inform its government that India had prepared in any way to implement such plans at its Pokhran underground test range in the desert of Rajastan near Pakistani border. Yet it was this particular explosion that turned out to be a crucial step on India's way towards acquiring nuclear status, which it announced after a series of nuclear explosions in May 1998. Pakistan — who had a hard time after the defeat in the 1971 conflict with India which had resulted in the loss of its Eastern part and the emergence of a new South Asian state, Bangladesh — gave the 1974 Indian explosion a serious thought and was quick to respond. On May 28 and 30 it detonated two nuclear explosive devices which signified the country's de-facto claim of a nuclear status. Thus, the confrontation of the two South-Asian states with a record of three armed conflicts acquired a nuclear dimension, which brought their conventional arms race won by India to a critical, and in the worst case, catastrophic point.

It should be stressed that in this case the term "nuclear status" as applied to India and Pakistan has no implications in terms of international law. Neither of these two "nuclear-weapon states" can be recognized as such in accordance with the international law.

The term "nuclear-weapon state" refers in accordance with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) only to those states which had exploded a nuclear weapon before the Treaty opened for signature in 1967. Hence, neither New-Delhi, nor Islamabad can claim such status in accordance with the terms set forth in the NPT.

Revising the Treaty and recognizing India and Pakistan as nuclear-weapon states will, no doubt, put an end to the Treaty and destroy the entire NPT-based nuclear non-proliferation regime. Such dramatic alterations to the Treaty would logically demonstrate that the countries that failed to sign the NPT and place their nuclear facilities under IAEA safeguards but succeeded in developing their nuclear-weapons programmes have acquired considerable political benefits instead of becoming the rogues in the eyes of the law-abiding rest of the international community complying with the NPT provisions. In all probability, this would cause a sharp negative response on the part of the countries voluntarily foregoing their nuclear weapon programmes and acceding to the NPT (South Africa, Brazil, Argentina), which may push them to revise their policy in this sphere. The collapse of the nuclear non-proliferation system today, when sensitive nuclear technologies become increasingly available, would have extremely negative consequences for all countries, including the NPT nuclear-weapon states. For this particular reason no one rushes to legally recognize India and Pakistan as nuclear-weapon states despite the fact that they do possess nuclear weapons.

However, as time passes, the situation appears increasingly absurd. No doubt, it would be more than unadvisable to officially recognize of the two South Asian nuclear-weapon states. However, ignoring the fact that they do possess nuclear capability one would behave just like an ostrich with its head in the sand, as neither India, nor Pakistan show any intention to heed to the calls to join the NPT as non-nuclear-weapon states. It appears that to break this vicious circle one needs to take a cautious and reasoned approach and study with utmost care all the legal aspects of the issue. Basically, the discussions at today's conference are intended precisely to search for such approaches.

It would be advisable to discuss India's and Pakistan's nuclear status by comparing or contrasting the role of nuclear missiles in the two states' foreign and domestic policy.

For India, its nuclear status de-facto places it among the powers with both regional and global ambitions and corresponding positions enabling them to lobby in bilateral and multilateral formats, primarily in the UN and its Security Council, a seat in which India has consistently yet vainly struggled to secure. The possession of nuclear weapons de-facto renders India equal to the P-5, the nuclear-weapon states with permanent seats on the UN Security Council whose reform and modernization India has anxiously expected and advocated. India aspires to advance its positions in this universal international body, relying on the support of Russia, its tried strategic partner, and with the help of the US the relations with whom, including in the framework of the 2008 peaceful nuclear cooperation agreement (the 123 Agreement) is getting increasingly close and multidimensional. The permanent membership in the UN Security Council would level India's international status with those of its main Asian rival, China, and enable the country to use veto rather than be an object of veto used by the great powers.

As for Pakistan, the status of a nuclear-weapon state enables it to secure leadership and authority in the Islamic countries, Pakistan being the only Muslim country possessing nuclear missiles. As a result of the activity of Abdul Qadeer Khan, a scientist and now a politician, Pakistan has been perceived as a nuclear missile technologies proliferator country. Strangely, this has benefitted Pakistan in a certain way, turning it into potential donor of such technologies in the eyes of many Islamic states, among which international experts quite often name Saudi Arabia, who has been generously funding Islamabad's military orders abroad.

In terms of international politics, Pakistan also takes certain advantage of its nuclear status as a member of the South Asian Association for Regional Cooperation (SAARC), being the only country, besides India, possessing nuclear weapons and hence claiming the role of a political balance to the undisputed leader of the organization

From the military perspective, India's nuclear weapons are intended to deter China named as the country's main strategic rival by most international political and military experts, including Indian ones. India is naturally concerned over rapid and consistent build-up of China's military capability, in particular, over notable strengthening of PLAN and their activities in South China Sea with its disputed islands and rich

hydro-carbon resources. In addition to this and the unsettled Sino-Indian border disputes, including over territories in the state of Jammu and Kashmir and in Arunachal Pradesh, there is a clear vector to India's foreign policy aimed at enhancing the country's influence in the key neighbouring regions, in particular, South-East Asia.

China's active penetration in South-Asian economy accompanied by its increased military activity in South Asian Seas can turn this particular region into the area of possible direct clash of India's and China's political and military interests.

India's international policy and military planning over the last decade has shown that the "China factor" has always had a major effect on Delhi's decisions. According to British experts, the rapid increase in the activity of Indian fleet in South Asian Seas since mid-1990s is a direct result of the intention to curb the expanding dominance of the Chinese navy. Jane's Defense Weekly stresses that while India had attached little importance to South Asian Seas before mid-1990s, in early 21st century it has become Delhi's strategic ambition to ensure control over the Strait of Malacca, or at least secure a possibility to threaten it.

At the moment, the balance of conventional armed forces between India and China is far from favouring India, as a number of researchers, including from Jane's have demonstrated. Indeed, PLAAF modernization programme is aimed, inter alia, at establishing rapid reaction force with a strength of 10 to 15 percent of the total strength of PLAAF, that is 200 to 300 thousand troops. This force is to serve as an advance party capable of deployment in a required area within 24 hours. Thus China will be capable of rapidly moving troops to any part of the country, obviously including the border with India, with the strength of these troops equaling that of a third part of all Indian ground force. At the moment no analyst doubts that China has general overwhelming superiority over India in any service branch, and taking in consideration the dramatic modernization of the Armed Forces carried out by China Beijing can attain an even greater military advantage.

All this highlights the importance of India's nuclear status as a means of deterring its rival, China. It should be stressed that right before the test explosions in May 1998 Delhi represented by its then Minister of Defense George Fernandes officially named "Chinese threat" as the main factor that had pushed India to clear the nuclear threshold. India's current military nuclear doctrine contains all the elements corroborating such

interpretation of India's nuclear status. These can be summarized as follows:

- India intends to develop a capability for credible minimum deterrence;
- India commits to no-first-use of nuclear weapons, admitting the use of nuclear weapons exclusively in response to a nuclear aggression against its territory or armed forces irrespective of their location;
- a retaliatory strike that may only be mounted on the authorization of the country's political leadership will be massive and intended to inflict irrecoverable damage;
- nuclear weapons cannot be used against a non-nuclear-weapon state;
- India reserves the right to a retaliatory nuclear strike in case of a massive aggression against itself or its armed forces using chemical or biological weapons;
- India continues to strictly comply with international regimes of export control over nuclear and missile materials and technologies;
- India reiterates its willingness to participate in negotiations on a fissile material cut-off treaty, adheres to its moratorium on nuclear tests, and reiterates its commitment to general and complete nuclear disarmament.

From the military perspective these elements of Indian nuclear doctrine as applied to Pakistan — whatever unclear they are and whatever ambiguous India's understanding of the "credible minimum deterrence" proclaimed by its leadership is — in fact, mean that India should be able to inflict inadmissible damage to Pakistan with a retaliatory nuclear strike. Taking in consideration Pakistan's economic and military, including nuclear, capability — which some overly optimistic Indian policy-makers believe to be at best equal to that of Greater Mumbai — realistic Pakistani political and military leaders will hardly think of being the first to use nuclear weapons to mount a disarming strike against India. It would be more logical for them to think along the lines of striking against India's densely populated cities which would be politically unacceptable for India. That is the raison d'être for Pakistan's nuclear weapons.

Finally, one cannot but mention **the role of the nuclear status in India's and Pakistan's domestic policy.** In India, nuclear weapons are

the subject of complete consensus between the two major national parties competing for power, The Indian National Congress (INC) and Hindu political force Bharatiya Janata Party (BJP). However, they tend to use the nuclear issue as a tactical means in critical moments of their political clashes. In particular, the decision to conduct the latest nuclear test was made by coalition government headed by BJP who had promised to cross the nuclear threshold in their election manifesto. This decision came amid the difficulties facing the party in early 1998, when it had a narrow and unstable majority in the parliament. The party also took into account that the nuclear option was widely supported as a basis of the country's defense capability and independence, while foregoing it would be considered as the betrayal of the national interests. In that circumstances, complying with one of its election promises and crossing the nuclear threshold BJP expected to stabilize the situation in the country and strengthen the position of the governing coalition.

Their plan worked well. The public opinion poll held on May 26-27, 1998 after the nuclear test showed that over 80 percent of the country's population approved of the government's decision to conduct the test and 65 percent agreed that the test served national security interests. That rise of nationalist feelings enabled the government to strengthen its positions.

In Pakistan, nuclear capability has been generally perceived as a means of enhancing national security and deterring the military strength of the neighbouring India. Thus, the country's nuclear status has served as the subject of equally solid consensus among different political forces. One can hardly point at any notable difference in the positions on the matter between the authoritarian military regime of General Musharraf, who adequately responded to India's nuclear test of May 1998, and any of the subsequent democratic governments of Pakistan. Thus the country's nuclear status foments the ties of different ethnic provinces and territories within the country, which, unlike India, remains unaccustomed to resolving complex domestic issues and maintaining political stability through democratic means.

At the same time, any deterioration in stability resulting from either internal or external factors causes increased concerns on the part of the international community, including India, Russia and the US, over the safety of Pakistan's nuclear missile capability under the control of responsible political and military leadership in order to prevent this lethal

weapons from falling into the hands of Islamic terrorists that abound in Pakistan.

No doubt, the issue of India's and Pakistan's nuclear status is not as simple and acute as this chapter may have portrayed it. Bilateral and multilateral factors exist and develop in the relations between India and China and India and Pakistan contributing to the scaling down of military confrontation. These factors have not yet prevailed over competition, rivalry and confrontation, but they might still do so in the future.

2. STRATEGIC RELATIONSHIP: INDIA PAKISTAN

Sheel Kant Sharma

On the situation in India and Pakistan. It will be useful to begin with short narratives of India and Pakistan. For India it is India's due place in world which figures high for a country of its size, democracy; pluralism and secular ethos as also its economy and mammoth reach and contribution to the UN system. At the same time India is acutely aware of its substantial limitations too as a developing country and the categorical imperative for internal comprehensive transformation of its socioeconomic situation. India expects, nonetheless, due recognition of its prowess in nuclear, space, and other High Technology, the reach and span of its human resource potential and its fast emerging economy.

As for Pakistan, its narrative is that of the sole nuclear armed Islamic nation and of a no-holds-barred quest to be the peer and rival of India. Its profile as a state has been characterized by the Army's hold on political economy. Pakistan has sensitivity about its identity and in recent decades has pushed identity politics to extremes. Pakistan is going through a phase of critical internal instability and economic mess and grappling with extremists and terrorists. At the same time it is ambivalent on Jihad & epicenters of terrorism within its territory and serious allegations about it using terrorism as instrument of state policy.

Both India and Pakistan are heavily populated and comprise a vital and heterogeneous sub-region of Asia which might figure just above Sub-Saharan Africa in most human development indices but has enormous potential. India is six times that of Pakistan, and its economy even larger. Ever since Pakistan's acquisition of nuclear capability the region is subject to nuclear brinkmanship because of the implicit risks of any bilateral conflict between the two escalating to nuclear.

There are essentially three factors of instability in the situation, namely, potential of armed conflict escalating to nuclear, internal instability in Pakistan blowing over, and risks involving nuclear first use

due to accident, misjudgment, miscalculation or inadequate security of the arsenal.

As regards possible approaches to dealing with this situation and the problem of stability it is important to recognize the variance in perception of their situation by India and Pakistan, how they project their respective views of it, how they take this situation on board their bilateral dialogue process and, finally, how external powers impact the situation and exercise their leverage.

Manifestations of instability. Coming to dimensions of instability, in so far as an armed conflict might escalate to nuclear there are the past instances variously cited by commentators within the region and outside.

Operation Brass Tracks 1987. During this operation massive Indian military exercise close to India-Pakistan border led to Pakistan's panic mobilization of troops on the border and amidst rising risk of an outbreak of border clashes Pakistan chose to reveal possession of a nuclear weapon through a contrived interview by Abdul Qadir Khan to an Indian journalist in London. This was viewed as implied threat of a nuclear flare up and was resolved by bilateral negotiations by both governments.

Gates Mission 1990. After the Soviet withdrawal from Afghanistan Pakistan was seen by India to have diverted its jihadi fighters from the Afghan border to Indian portion of Jammu and Kashmir leading to wide scale violence and public chaos which led India, in turn, to deploy troops in J&K. US Deputy Secreatry of Defence Robert Gates visited J&K in May 1990 to defuse the situation, which was accentuated by revelation that Pakistan had nuclear weapons.

Kargil War 1999. Pakistani regular troops dressed as jihadis occupied Indian side of the line of control (LOC) in Kashmir controlling tactically critical heights in Kargil. India had to finally mobilize its Army and air force to evict the Pakistani occupiers in a set of fierce battles in the summer of 1999 when risk of nuclear escalation was heightened.

Operation Parakram 2001-2002. Following terrorist attack on India's parliament in session in December 2001 which was traced to Pakistan, India mobilized full wartime alert on the entire border with Pakistan. This led to a Pakistani tit for tat response coupled with nuclear threat. Both sides' troops faced each other for ten months during which on two occasions tension peaked. Situation was deescalated in October 2002.

Crisis after events of November 26, 2008. Audacious attack by Pakistani terrorists in the city of Bombay on November 26, 2008 comprised sea borne terrorist landing, followed by indiscriminate firing in busy central train station as well as holding of hostage in two five star hotels in the city and a Jewish Guest House. Indian commandos took three days to get the militants killed and hostages released but hundreds including hotel guests, commuters and foreign tourists lost lives. Indian government had proof of operations being conducted and controlled from Pakistan including the Pakistani army and ISI and a Pakistani was captured alive by Police in Bombay. Situation contained seeds of serious escalation as the nation was enraged. Pakistani stock denials were accompanied by nuclear threats.

Pakistan's stated policy posture about being ready for nuclear weapons' use has been a key factor to these crises.

As regards Instability in Pakistan there are a number of factors such as stories abound of Talibanisation in Pakistani army, growing cost in material and troops of Pakistan fighting Taliban, reports about politics in Pakistan being jihadi-driven, with leading political formations virtually having their backs to the wall, and two serious instances when militant extremists attacked heavily guarded military installations near Islamabad and Karachi leading to rising voices of fear that radical jihadis might some day gain access to nuclear weapons .

An aggravation in all these situations involves risks of nuclear weapons use. Pakistan has no nuclear doctrine as such but has operational India-specific posture to use nuclear weapons if, as stated by one senior Pakistani defense official, certain redlines were crossed, namely:

- space – if Pakistan were attacked and large territory conquered;
- military – destruction of large part of Pakistan's Air/Land forces;
- economic – economic strangling of Pakistan by India;
- domestic – domestic Political destabilization in Pakistan or subversion pushed by India

In the view of another senior opinion leader in Pakistan the purpose of its nuclear weapons is, inter alia, to "induce India to modify its goals, strategies, tactics and operations". A deliberate pitch for the irrational and limitless scope for nuclear use is inherent and implicit in these.

As against this India's Nuclear Doctrine is that of no-first-use but includes assured massive retaliation in the event of a first strike with nuclear weapons against India.

Both India and Pakistan claim credible minimum deterrence as key to their security.

India and Pakistan: different approaches. As to how to cope with the situation, Indian approach consists of using diplomatic means to ensure stopping of anti India terrorist acts originating in Pakistan, trial and conviction of accused of 26/11, including terrorist organization LeT. This in Indian view would lead to reduction of trust-deficit between the two countries. India seeks at the same time engagement and dialogue to build trust, promotes expansion of bilateral trade, including grant of MFN status to India by Pakistan and is ready for a qualified non-reciprocity in trade concessions. India stresses people to people connectivity and has joined Pakistan in a bilateral dialogue on CBMs, albeit an interrupted one. India position is that its security matrix is vastly different from Pakistan's and it finds the role of external military, nuclear and missiles related assistance to Pakistan a factor for exacerbation of regional stability.

Pakistan on the other hand approaches the situation with stout Denial of involvement in anti India terrorism and claims itself as victim of terrorist acts. It demands conflict resolution and dispute settlement with India and advances lack of it as source of problems. Pakistan is cautious on expanding trade and people to people contact and is protective about their domestic impact. It asserts that its support to terrorists in J&K is political and will remain undiminished and it would like to involve external powers in every which way to attain parity with India. Pakistan continues build up of nuclear warheads & missiles with India-specific security concerns.

Both countries have been in talks with each other off and on. Bilateral dialogue has been interrupted however due to terrorist acts in India, allegedly from Pakistan. Meetings take place at all levels from the heads of state and governments to the ministerial including for external affairs, trade &commerce, interior/home as well as at the level of foreign secretaries but progress in these meetings has been slow and limited to a narrow agenda. Both sides harbor considerable trust deficit which is the bane of bilateral moves in security matters. Both nonetheless swear by dialogue and engagement and have kept back channel contacts on.

Important to the bilateral discourse and the overall situation is how external powers impact or perceive it. In historical perspective these can be described in terms of cold War and considerations of realpolitik. Pakistan received unflinching support and military assistance through its cold war ties while nonaligned India's special relationship with the Soviet Union was vital. Chinese realpolitik consisted of lasting all weather friendship with Pakistan including substantial nuclear and missile proliferation links that endure. Great Powers and Great Game history of geostrategic importance of the Pakistan Afghanistan region also plays a key role as great power rivalry in the region has been a legacy from a period much before the cold war or even the Soviet Union. This stubbornly manifested in the region in military alliances entered into by Pakistan since early years of independence. In addition, both countries seek a major role UN, Regional and Inter-regional Organizations. Pakistan tries to involve the UN and other external actors but India insists on coping with the political problems bilaterally, as agreed in the 1972 Simla Agreement, for instance. But on arms control India insists on multilaterally negotiated measures under UN auspices. As regards proliferation linkages, the role played by the AQ Khan network was substantial in spreading Pakistan's influence in the Islamic world.

External powers have also expressed concerns about failing States and off and on commentaries in this regard include Pakistan, unjustifiably perhaps, due to mounting terrorist menace and economic difficulties. They issue travel advisories from time to time, the business impact of which on both sides can be leveraged towards defusing crisis situations.

On the way to dialogue. Thus the deterrent relationship between the two has that much less autonomy and resist parallel with the relationship of the erstwhile superpowers. Finally, with the economic morass sorted out both are also viewed with huge possibilities as actual or potential emerging economies; especially if more and more reforms are brought about and stable relations prevail.

India and Pakistan have been engaged in dialogue for CBMs both officially as well as in track II. The official dialogues can be broadly characterized by preliminary exploration on need for clarity on doctrines, transparent information exchanges on tests/maneuvers, on avoidance of destabilizing steps, miscalculation, accidental nuclear use, early warnings and securing of hotlines and channels of communications between military commanders like DGMOs and also conflict resolution.

In the foregoing description of multiple facets of their strategic interrelationship, arms control does not figure since India does not envision nuclear arms control or disarmament except in multilateral negotiations under UN with participation of all nuclear weapon states. India thus supports launching FMCT negotiations in CD. Pakistan is not ready for it. India maintains a unilateral moratorium on nuclear tests as de facto observance of a test ban. Pakistan does the same. Signing the CTBT for both does not appear to be on cards at present. India has been on record to say that it would not be in the way of the entry into force of CTBT. India rules out any bilateral steps with Pakistan on CTBT.

It is important to note that to strategic community in India any dialogue with Pakistan without including China in the process does not seem to be tenable since China's nuclear weapons/missiles related assistance and linkages are by now too well documented in strategic literature globally. India's approach to China has been to forge good bilateral relations spanning trade investment and all other dimensions of good neighbourly ties. Discussions between India and China on the nuclear question are rather narrowly confined by the latter to UN centric multilateral agenda.

Conclusion. The foregoing description of the broad setting of bilateral relationship of India and Pakistan may have some difference of nuance depending on the observers own frame of reference. Common factors in approaches of both sides and those of external actors have been few and far between except in times of acute crisis when all have managed so far to agree on de-escalation and withdrawing from the brink. A premature rush for measures mimicking situations elsewhere has no workable precedent in South Asia due largely to persisting lack of trust apart from dissimilarities with the models proffered. Close proximity of both lends an uncertain edge to confidence building which is highly desirable in the context of nuclear weapons and missiles build up.

3. PAKISTAN'S APPROACH TOWARDS NUCLEAR ARMS CONTROL

A. Sultan

Pakistan was one of the leading proponents of the nuclear nonproliferation treaty (NPT) during its negotiations in late 60s; mainly to prevent neighboring India from following the nuclear weapons path and to preclude the nuclearization of South Asia. Once India refused to sign the NPT by labeling it as 'discriminatory' and 'nuclear apartheid', Pakistan also decided not to accept any legally binding obligations and refrained from signing the nonproliferation treaty. Subsequently, India's nuclear test of 1974 had a decisive impact on Pakistan's approach towards nuclear nonproliferation efforts. On one side, it proposed several regional measures that could help reverse the nuclearization process, while on the other side, it started moving towards acquisition of its own nuclear capability that eventually led Pakistan to follow a cautious approach towards various international nonproliferation initiatives. After becoming an overt nuclear weapon state, Pakistan would like to engage with various international nonproliferation efforts on the basis of reciprocity, and through collaborative and non-discriminatory approaches.

Early nonproliferation efforts. Sensing the obstacles and serious consequences of the regional nuclear competition, Pakistan in 1974 offered South Asia to be declared as a nuclear weapons free zone (NWFZ). In 1978, it proposed that both India and Pakistan renounce the acquisition or manufacture of nuclear weapons, and agree to mutual inspection of each other's nuclear facilities. In 1979, Pakistan also suggested that both regional countries may accept full-scope IAEA safeguards and give up their individual weapons pursuits. These proposals were intended mainly to reverse India's nuclear weapons program, as allowing India to build weapons capability would permanently shift the strategic balance in India's favor, and thus remained unacceptable for Pakistan.

Subsequently, once it became evident that 'unproliferation' of South Asia may not be possible, Pakistan's arms control efforts became more pragmatic and focused towards restraining the nuclearization process at the regional level, instead of calling for its complete reversal. Therefore in 1987, despite the fact that India had already tested a nuclear device earlier, Pakistan proposed a regional nuclear test ban treaty that if agreed by India could have precluded the possibility of 1998 nuclear tests by both the countries. This was followed by another proposal of declaring the South Asia a Zero Missile Zone, and in 1997, Pakistan also proposed a non-aggression pact between the two South Asian neighbors.

The most comprehensive proposal offered to India in 1999, after both India and Pakistan had become overt nuclear weapon states was the suggestion to establish Strategic Restraint Regime (SRR) in South Asia. This proposal had three inter-locking principles; conflict resolution, missile and nuclear restraint regime, and conventional balance in the region. Like all other previous proposals, India did not find merit in engaging with Pakistan on discussions to establish SRR in the region, which could have helped address all aspects of political and military competition between the two regional rivals.

The failure of arms control efforts in South Asia could be accredited to asymmetrical regional power structure and divergent national priorities. India justifies its conventional and nuclear build up against 'perceived' Chinese threat, and also refuses to join international arms control arrangements citing these as 'discriminatory' in nature. Pakistan's approach towards arms control, on the other hand, has been shaped mainly by the Indian actions or lack of it, as it directly or indirectly affects Pakistan's security calculus.

Recent developments impacting Pakistan's strategic thinking. Some of the more recent developments that have complicated arms control debate, both globally as well as at the regional level include; the 2006 India-US civil nuclear cooperation agreement and the 2008 India-specific waiver by the Nuclear Suppliers Group (NSG) from its export control guidelines. These developments have serious long term political as well as security implications, as it legitimizes the status of India as a nuclear weapon state outside the NPT while ignoring Pakistan that is also seeking a similar recognition.

After the India-US nuclear deal and the India-specific NSG exemption, India has emerged as the only country eligible to enter into nuclear trade with other members of the NSG, without any reciprocal

nonproliferation obligations. Pakistan's plea for an equitable treatment has not been viewed with favor as yet by major NSG countries for their own political and commercial considerations. This from a Pakistani perspective is discriminatory and would lead to further friction between the two regional nuclear powers, and Pakistan's interaction with various ongoing international nonproliferation and disarmament initiatives.

The India-US nuclear agreement, besides undermining the established global nonproliferation norms has also serious security implications for Pakistan. The nuclear deal allows India to maintain at least eight nuclear facilities outside the IAEA safeguards. India has also been given unprecedented concession to reprocess US supplied fuel in two dedicated facilities. In the past such largesse was extended only to the closest of US allies, i.e. Japan and Euratom. The US assurance of fuel supplies in perpetuity would further allow India to devote more of its domestic uranium to beef up its nuclear arsenal, whereas the imported fuel would be used mainly to furbish its nuclear power plants.

Pakistan's security managers during the past few years have also been highlighting several other factors that could affect regional security dynamics and adversely affect Pakistan's threat perception. Some of these include; India's bid to build anti ballistic missile system that could undermine Pakistan's nuclear posture of credible minimum deterrence; India's military doctrines of 'Cold Start' and 'Pro Active Operations' – aimed to punish Pakistan militarily by exploiting the 'perceived' gap below Pakistan's nuclear threshold; the growing conventional imbalance due to massive increase in Indian defense budget over the past few years; and also India's bid to acquire sea-launched second strike nuclear capability.

These developments have not only impacted adversely on the global nonproliferation and arms control efforts, but have had a major impact on Pakistan's approach on various issues, especially the ongoing debate on FMCT at the Conference on Disarmament (CD). This was evident from the statement issued by Pakistan's National Command Authority (NCA) – the highest forum for all nuclear related decision making in the country, once it stated that:

> *"Pakistan's position will be determined by its national security interests and the objectives of strategic stability in South Asia. Selective and discriminatory measures that perpetuate regional instability, in any form and manner, derogate from the objectives of nuclear disarmament and non-proliferation and, therefore,*

cannot be accepted or endorsed. Pakistan will not support any approach or measure that is prejudicial to its legitimate national security interests."[1]

From a Pakistani perspective, FMCT is considered a vital national security issue because it has direct bearing on regional stability. The long history of mutual distrust and suspicion leading to numerous crises between India and Pakistan does not allow for de-hyphenation of South Asian security equation. Senior decision makers in Pakistan have repeatedly stated that Pakistan does not intend indulging into an arms race with India, but it cannot agree to any arms control measures that could undermine its security interests in the long run.

The way forward. The international non-proliferation regime could only become more secure and inclusive with the involvement of the non-NPT NWS, mainly India and Pakistan that are established nuclear weapon states. Unless these states are integrated into the mainstream nonproliferation regime through non-discriminatory approaches, it is unlikely that the regime could be universalized and strengthened to prevent the regime from further fracture. The former DG IAEA Mr El Bradei, soon after the conclusion of India-US nuclear deal also warned about such a possibility, once he wrote that the traditional strategy of treating non-NPT states as outsiders – is no longer a realistic method of bringing these into the fold. He therefore urged that other strategies must be found to enlist countries like Pakistan and others as partners in nuclear arms control and non-proliferation.

If Pakistan has to be enlisted as one of the major stake holders in global arms control and nonproliferation efforts, it may only be possible by accepting the established ground realities and its integration into mainstream nonproliferation regime through non-discriminatory measures. Collaborative approaches based on principles could help reduce Pakistan's India-specific anxieties and encourage it to engage in various ongoing nonproliferation efforts more proactively. This would not only be useful for the regional security but could also strengthen global arms control and nonproliferation efforts.

[1] Statement by Pakistan's National Command Authority (NCA) of 13 Jan 2010. (http://www.ispr.gov.pk/front/main.asp?o=t-press_release&date=2010/1/13)

4. MILITARY STRATEGIC RELATIONS OF INDIA AND PAKISTAN

Pyotr Topychkanov

India and Pakistan have dynamic nuclear weapons programmes. Meanwhile, the two countries' political relations have considerable potential for conflict. They are complicated by territorial and water-sharing disputes, terrorism and extremism, and the influence of third countries. The lack of mutual confidence and instability of political dialogue exacerbate permanent threat of conflict. With this tangle of contradictions, escalating military confrontation and the nuclear arms development - South Asia has turned into a region facing a highest risk of war with the use of nuclear weapons.

The genesis of nuclear option. In 1980s the security challenges that faced India and Pakistan led to a situation of "latent deterrence", i.e. virtual mutual deterrence between countries that were about to cross nuclear threshold. It was in 1980s when the two countries acquired technologies and materials necessary for the production of nuclear weapons.

In 1974 India held a so-called peaceful nuclear explosion at the Pokharan test range in Rajasthan. However its final claim of membership in the nuclear club came on May 11, 1998 after the three test explosions of nuclear devices with a yield of 45 kt, 15 kt and 1 kt. On May 13 it detonated two more devices with a yield of less than 1 kt. Pakistan was obviously well prepared and responded in a symmetrical manner exploding the same number of six devices in the course of two days (in 1998 India exploded five devices, which in addition to the one tested in 1974 makes six).

According to the International Panel on Fissile Materials, India may presently have 80-100, and Pakistan 90-110 nuclear warheads. Both countries are capable of further building up their nuclear arsenals[2].

[2] Countries: India // International Panel on Fissile Materials (http://fissilematerials.org/countries/india.html); Countries: Pakistan // International Panel on Fissile Materials (http://fissilematerials.org/countries/pakistan.html).

Table 1.

Fissile Material Production in South Asia, 2012

Country	Uranium enrichment		Plutonium production	
	Facility	**Total HEU stockpile (90%)**	**Facility**	**Total stockpile of weapon-grade plutonium**
India	Enrichment facility at the Bhabha Atomic Research Center (Rattehalli)	0.22-0.56 t	The Bhabha Atomic Research Center (Trombay), Tarapur-1, Tarapur-2, Kalpakkam	0.15±0.15 t
Pakistan	A.Q. Khan Research Laboratories (Kahuta); Gadwal, Golra and Sihala enrichment plants	2.6 t	"New Laboratories" of the Pakistan Institute of Nuclear Science and Technology (Nilore)	100 kg
Sources: International Panel on Fissile Materials (http://fissilematerials.org/); Standing Committee on Defense & Defense Production, Senate of Pakistan (http://www.senatedefencecommittee.com.pk/index.php?pageid=home).				

Both India and Pakistan strive to develop nuclear triad using aircraft and ground-launched missiles as delivery vehicles for their nuclear weapons and also develop submarine-launched missiles and sea-based launch platforms. Indeed, India has multipurpose Mirage 2000H fighters which can deliver gravity bombs. It is reported that Jaguar IS Shamsher tactical strike fighters and multi-purpose SU-30MKI fighters may also be used for this purpose[3]. Pakistan can deploy its nuclear warheads on multi-purpose F-16A/B and Mirage 3/4 fighters[4]. Some Indian experts believe that this role may also be assigned to Sino-Pakistani JF-17 multi-purpose fighter[5] equipped with Russian RD-93 engine[6].

Unlike India, Pakistan is ready to arm its fighters with Ra'ad (Hatf-8) cruise missiles in the foreseeable future. The missile is currently

[3] Kile Sh.N., Schell Ph., Kristensen H.M. Indian Nuclear Forces // SIPRI Yearbook 2012: Armaments, Disarmament and International Security / Ed. by Bates Gill. Oxford: Oxford University Press, 2012. P. 334.

[4] Ibid. P. 338.

[5] Pant H.V. Pakistan Thorn in China-India-U.S. Relations // The Washington Quarterly. Winter, 2012. P. 85.

[6] JF-17 лучше «Сухих» – минобороны Пакистана. 11 августа 2010 // Перископ 2: новости ОПК и ВТС России (http://periscope2.ru/2010/08/11/2684/).

[Pakistan's Defense Ministry says JF-17s are better than Sukhoys. August 11, 2010, Periskop 2: Novosti OPK i VTS Rossii (http://periscope2.ru/2010/08/11/2684/ (in Russian)).]

undergoing a series of tests. According to official data "the state of the art Ra'ad Cruise Missile with Stealth Capabilities is a Low Altitude, Terrain Hugging Missile with high maneuverability, and can deliver nuclear and conventional warheads with great pin point accuracy"[7]. The Ra'ad cruise missile can also become the main weapon system of the Naval Strategic Force Command (NSFC) established in May 2012 as the custodian of the nation's 2nd strike capability[8]. It remains unclear whether the sea-launched cruise missiles (SLCMs) are to be deployed on surface ships or on submarines. The latter appears less likely, as no open source gives any account of Pakistan having conducted submarine missile test launches.

India repeatedly conducted such launches, with the last of them held in March 2012 using a sub-surface platform. That was a test of the K-15 (Sagarika) submarine-launched ballistic missile (SLBM) with a range of 750 km and a payload of 500 to 1000 kg according to different estimations. India is also working on the K-4 SLBM with a range of up to 3500 km and a payload of up to 1000 kg. These missiles may be deployed on the Arihant class submarines, sea trial of which has commenced in 2012. This submarine has four launchers and can carry 12 K-15 missiles or four K-4 missiles. Arihant is to enter service in 2012[9]. These plans can be implemented to a great extent thanks to the valuable experience India has acquired renting Russian multi-purpose Nerpa (Chakra) nuclear-powered submarine that entered service of the Indian Navy in 2012. It is used for the training of crews which will subsequently sail Indian-made submarines[10].

Despite certain advances in the development of the air and sea-based components of their respective nuclear triads India's and Pakistan's nuclear capabilities continue to rely mostly on ground-launched missiles, which will retain their leading role in the foreseeable future.

[7] Press Release No. PR104/2011-ISPR. April 29, 2011 // ISPR — Inter Services Public Relations (http://www.ispr.gov.pk/front/main.asp?o=t-press_release&date=2011/4/29).

[8] Press Release No. PR122/2012-ISPR. May 20, 2012 // ISPR — Inter Services Public Relations (http://www.ispr.gov.pk/front/main.asp?o=t-press_release&date=2012/5/19).

[9] Pandit R. India Quietly Gate Crashes Into Submarine-Launched Ballistic Missiles Club? // Times of India. July 31, 2012.

[10] Емельяненков А. «Нерпа» вошла в состав ВМС Индии // Российская газета. 4 апреля 2012 г.

[Yemelyanenkov A. Nerpa enters the service of the Indian Navy// Rossiyskaya Gazeta. April 4, 2012, {in Russian).]

India's Missile Capability. In mid 1980s Indira Gandhi's government commissioned the Defense Research and Development Organization (DRDO) to conduct research and development in three areas, including on different classes of missiles. Since early 1980s Bharat Dynamics Limited (BDL) has been the main defense agency of the Integrated Guided Missile Development Program (IGMDP).

In 1983, Prithvi-1 tactical missile capable of carrying both nuclear and conventional warheads was the first project approved under the IGMDP. According to some estimates, 5 to 10 percent technologies used in this missile were foreign-based, including liquid propulsion and guidance systems[11]. The missile was successfully flight-tested in 1988 for the first time, with a total of 14 flight tests held, of which only one proved a failure. In 1994 BDL started serial production of Prithvi-1[12].

The first liquid-propulsion tactical missile of the Prithvi family was followed by other types: Prithvi-2 (first flight test held in 1992) intended for the Air Force, and Dhanush (2000) and Prithvi-3 (2004) for the Navy. By now BDL may have manufactured over 150 Prithvi-1 missiles and over 70 Prithvi-2 missiles (See Table 2). As for Prithvi-3, if BDL has completely fulfilled the Navy's order, India should possess over 80 missiles of this modification. However these missiles cannot be deployed yet, as India has no ships with the required launchers.

The Prithvi system is also considered for export. As far back as in 1996 Indian authorities included Prithvi missiles in their exports lists[13].

The Agni medium-range ballistic missile (MRBM) was the second project under the IGMDP approved in 1983[14]. It was developed by the Advanced Systems Laboratory (Hyderabad), while BDL was tasked with its production[15]. The so-called Agni technology demonstrator was first test-launched in 1989, and in 1992 and 1994 more test launches were held.

Based on the results in 1995 India decided to develop Agni-2 operational weapon system. Its first test launch in 1999 was shortly followed by the tests of other missiles of the family: Agni-1 (2002),

[11] India Defence Industry. October 16, 2002 // Central Investigation Agency (http://www.cia.gov/nic/pubs/research_supported_by_nic/conference_paper/bristow.htm).
[12] BDL Milestones // Bharat Dynamics Limited (http://bdl.ap.nic.in/milestones.htm).
[13] Kumar D. Prithvi, Other Missiles Available For Export // Times of India. January 14, 1996; *Pandit R.* New Delhi Planning to Sell Missiles to Friends // Times of India. May 2, 2003.
[14] Subramanian T.S. A Success Story // Frontline. 2005. Vol. 22. Issue 20.
[15] Missile Defense Headlines Update. May 14, 2010 – May 20, 2010 / Ed. by P. Lahr. Alexandria: Missile Defense Advocacy Alliance, 2010. P. 32.

Agni-2 Prime/Plus (2010), Agni-3 (2006), with Agni 4/5 being currently developed. It is assumed that only one-stage Agni-1 solid-propellant tactical missile and two-stage Agni-2 solid propellant MRBM entered service[16], with Agni-1 manufactured since 2004, and Agni-2 since 2001.

On April 19, 2012 India conducted the test launch of Agni-5 missile, after which its officials announced that India joined the "elite missile club" of states possessing inter-continental missiles[17]. In reality Agni-5 is essentially a medium-range missile, which may enter service in 2015, should a series of its test prove successful[18].

Table 2.

India's Ballistic Missile Capability

Designation	Class	Warhead	Produced since	No. of pieces produced annually	Total No. of pieces produced	Cost per missiles
Prithvi-1	Ttactical	Conventional	1994	10-50 missiles of the Prithvi family	~150	About $500,000 per a missile
Prithvi-2	Ttactical	Conventional	2004?		~70	
Prithvi-3	Ttactical	Nuclear	2004?		~80	
Dhanush	Ttactical	Nuclear	2003?		Over 25	
Sagarika	Ttactical	Nuclear	?		?	
Agni-1	Ttactical	Nuclear	2004	?	?	?
Agni-2	MRBM	Nuclear	2001	10-18	~100	$4.8-6.6 million
Agni-3	Ttactical	Nuclear	?	?	?	?
Agni-4/5	MRBM	Nuclear	?	?	?	?
Source: Compiled by the author						

Pakistan's Missile Capability. Pakistan has closely cooperated with other countries to develop its nuclear weapon programme. There are also suspicions that Pakistan has transferred the technology for the production and testing of nuclear weapons to DPRK since 1997 in exchange for the medium-range ballistic missiles technology. The missiles in question are Pakistan's Ghauri-1, 2 and 3 liquid-propellant missiles (test launched respectively on April 6, 1998, April 14, 1999, and

[16] Pandit R. Op. cit.
[17] India Test-Fires Agni-V; Joins Elite Missile Club // Deccan Herald. — 2012. — Apr. 19.
[18] Pandit R. India Quietly Gate Crashes Into Submarine-Launched Ballistic Missiles Club? // Times of India. July 31, 2012.

possibly August 15, 2000[19]). According to certain estimates, Pakistan's Ghauri-1 is a full copy of the North Korean Nodong missile, while Ghauri-2 and 3 are a combination of North Korean and domestic technologies[20].

Shaheen missile family was developed with the help of China. Indeed, Shaheen-1 is a Pakistani version of the Chinese DF-15 missile. The first test launch of Shaheen-1 took place on April 15, 1999. At a military parade in 2000 Islamabad demonstrated the two-stage Shaheen-2 medium-range missile and a missile with a range of 2,500 km capable of carrying a payload of 700 kg[21].

All Pakistan's missiles can carry both conventional and nuclear warheads, while the country's leadership reportedly decided to arm Hatf-1 and Hatf-2/Abdali missiles exclusively with conventional warheads (similarly to India which uses conventional warheads on its Prithvi-1 and Prithvi-2 missiles)[22]. However, at the moment Pakistan possesses barely enough nuclear warheads to arm 100 of the total of its 360 missiles (See Table 3). It is assumed that Pakistan is currently working to shift its nuclear weapon programme from uranium enrichment to plutonium production[23]. As Pakistan and India implement no confidence-building measures with regard to nuclear and conventional warheads on their missiles, a conventional missile launched by any of the parties may always be mistaken for a nuclear one and provoke the other side's nuclear response.

At peacetime both India's and Pakistan's nuclear forces remain de-alerted. To make their nuclear forces operational, the two countries would need about the same time they would need to assess the consequences of the other side's missile strike. However, when the two

[19] Тронов А.М., Лукоянов А.К. Средства доставки ядерного оружия Пакистана, May 17, 2006 // Институт Ближнего Востока, (http://www.iimes.ru/rus/stat/2006/17-05-06b.htm)
[Tronov A.M., Lukoyanov A.K. Pakistan's Nuclear Weapons Delivery Means. May 17, 2006, Institute of the Middle East Studies, (http://www.iimes.ru/rus/stat/2006/17-05-06b.htm.), in Russian.]

[20] Pakistan and North Korea: Dangerous counter-trades // IISS Strategic Comments. November 2002. Vol. 8. Issue 9. P. 1; Cirincione J., Wolfsthal J.B., Rajkumar M. Deadly Arsenals: Nuclear, Biological, and Chemical Threats. Washington, 2005. P. 108-109.

[21] Тронов А.М., Лукоянов А.К. Указ. соч.
[Tronov A.M., Lukoyanov A.K. Op. cit.]

[22] Kumar A., Vannoni M. Op. cit. P. 42.

[23] Moskalenko V., Topychkanov P. Nuclear Pakistan: Possibilities of Neutralizing the Threats to the NPT Regime // Russia: Arms Control, Disarmament and International Security / IMEMO Supplement to the Russian Edition of the SIPRI Yearbook 2009 / Ed. by A. Kaliadine, A. Arbatov. Moscow: IMEMO, 2010. P. 135.

states are in conflict and their nuclear forces may be put on alert, this scenario of a nuclear exchange by miscalculation seems more probable.

Of all Pakistan's missiles, only Hatf-6/Shaheen-2 MRBMs are capable of reaching targets in any part of India's territory. It is assumed that all the missiles of this type (totaling over 10) are on launchers[24]. Pakistan also possesses other missiles with a range sufficient to threaten critical Indian military, administrative and industrial facilities, including the country's capital, New Delhi.

In addition to nuclear strikes against India's administrative and industrial centers, Pakistan presumably plans nuclear strikes against India's armed force, including use of nuclear weapons on its own territory in case of invasion[25]. This explains the diversity of Pakistani tactical missiles, including the developed Hatf-9/NASR missile. According to official data, this high-accuracy missile has a range of 60 km and is launched from mobile launchers, which makes it possible to quickly change firing positions[26].

Table 3.

Pakistan's Ballistic Missile Capability

Designation	Range, km	Payload, kg	Warhead	Entered service
Hatf-1	70-100	500	Conventional	1992
Hatf-2 / Abdali	180-260	250-450	Conventional	2005
Hatf-3 / Ghaznavi	400	500	Nuclear	2004 (?)
Hatf-4 / Shaheen-1	>450	700-1,000	Nuclear	1999
Hatf-5 / Ghauri-1	1,300	1,000	Nuclear	1998
Hatf-5A / Ghauri-2	1,500-1,800	700	Nuclear	1999 (?)
Hatf-6 / Shaheen-2	2,500	700	Nuclear	2005 (?)
Source: Compiled by the author				

[24] Kristensen H. Pakistani Nuclear Forces, 2007. May 9, 2007 // FAS Strategic Security Blog (http://www.fas.org/blog/ssp/2007/05/article_pakistani_nuclear_forc.php). In 2007, Hans Kristensen assumed that Pakistan was preparing to deploy Hatf-6/Shaheen-2 missiles, in response to which Tasneem Aslam, the spokesperson of the Pakistani Foreign Ministry, said, "This is speculation which contains some truth and some fiction" (Quoted from: A Day Later, Pak Plays Down Report on GeNext N-Missile // The Times of India. — 2007. — May 11).

[25] The author's communication with a Pakistani government official who requested anonymity (Islamabad, October 27, 2010).

[26] Press Release No. PR94/2011-ISPR. April 19, 2011 // ISPR — Inter Services Public Relations (http://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=1721).

India's and Pakistan's Nuclear Doctrines. Neither India, nor Pakistan have official nuclear doctrines. Still it is possible to get a general idea of their perception of the role of nuclear weapons from official statements and documents. In accordance with the decision of the Cabinet Committee on Security (CCS) dated January 4, 2003, "India's nuclear doctrine can be summarized as follows: 1) building and maintaining a credible minimum deterrent; 2) a posture of "No First Use": nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere; 3) nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage..."[27]

As Pakistani Prime Minister Nawaz Sharif said on May 20, 1999, "nuclear restraint, stabilization and minimum credible deterrence constitute the basic elements of Pakistan's nuclear policy"[28].

There are certain contradictions in India's and Pakistan's concepts of minimum credible deterrence:

First, how India can match "minimal deterrence" with the concept of having a capability for a massive retaliatory strike?

Second, will India strictly comply with its no-first-use commitment, if it faces an imminent threat of nuclear attack before it has deployed missile defense system or developed robust retaliatory capability?

Third, would Pakistan abstain from building up its nuclear capability and raising its alert level at peacetime if India deploys a missile defense system and acquires powerful retaliatory strike capability relying on much shorter time of bringing forces to high operational readiness?

Arms Control. India and Pakistan have no arms control agreements, despite having a mutual nuclear deterrence relationship and approximate parity of nuclear forces. This may be explained by the following reasons.

[27] Cabinet Committee on Security Reviews Progress in Operationalization India's Nuclear Doctrine // Press Information Bureau, Government of India, January 4, 2003 (http://pib.nic.in/archieve/lreleng/lyr2003/rjan2003/04012003/r040120033.html).

[28] Remarks of the Prime Minister of Pakistan, Nawaz Sharif, on Nuclear Policies and the CTBT, National Defence College, Islamabad, May 20, 1999 (Quoted from: Ayaz Ahmed Khan. Indian Offensive in the Kargil Sector // Defence Journal. June, 1999 (http://www.defencejournal.com/jun99/indian-offensive.htm)

First, India and Pakistan are in the process of building up and modernizing their nuclear forces in pursuit of advantage over each other and do not want to be constrained by any agreed limitations.

Second, so far India has not viewed Pakistan as an equal state and is unwilling to legalize any equality with it through arms limitation agreements (which by definition imply equality of the parties).

Third, India's nuclear forces are directed at China as well as Pakistan, and equal limitations for India and Pakistan would weaken New Delhi's position in the military balance with Beijing.

Fourth, Pakistan strives to secure advantage over India in nuclear forces in order to make up for India's overwhelming superiority in general purpose forces.

Fifth, India is unwilling to exchange even basic information on the composition and structure of its nuclear forces with Pakistan in order to prevent its leakage to India's other potential adversary, China.

Sixth, India and Pakistan declare their commitment to minimum credible deterrence, but they are unwilling to legalize their postures in any binding manner fearing that the other party may cheat or circumvent the limitations in some other manner.

At the same time, India and Pakistan have signed some agreements pertaining to confidence-building measures:

- the 1991 agreement banning attacks on nuclear facilities;
- the 2005 agreement on advance notice of ballistic missile tests;
- the 2007 agreement to prevent any emergencies involving nuclear weapons.

Neither of these agreements provides for any verification mechanisms and procedures. It can be assumed that with the geographic vicinity of the two countries and high activity of the intelligence services, they feel no need for special verification mechanisms in certain spheres. For example, either country's preparations for a missile test would hardly remain unnoticed by the other. Hence both are ready to notify each other of the test to avoid any misinterpretation. Nevertheless, in the absence of agreed verification mechanisms India and Pakistan have more chances for unilateral steps which may destabilize the military environment in the region.

The two states elaborated confidence-building measures most actively at the time of their Comprehensive Dialogue of 2004-2008. The idea of this dialogue was put forward by Pakistan in 1998 as part of the

proposal to establish a "Strategic Restraint Regime". Although India did not accept the proposal, some of its components were reflected in the 1999 Lahore Declaration, for example: "[The two Governments] shall take immediate steps for reducing the risk of accidental or unauthorized use of nuclear weapons and discuss concepts and doctrines with a view to elaborating measures for confidence building in the nuclear and conventional fields, aimed at prevention of conflict".

The 2005-2007 bilateral agreements on confidence-building measures came as a direct result of the Comprehensive Dialogue, which was phased out after the 2008 terrorist attack on Indian city of Mumbai, as India accused Pakistan of supporting the terrorists. The Dialogue was resumed in 2012, but has not so far brought about the discussion of "concepts and doctrines with a view to elaborating measures for confidence building in the nuclear and conventional fields".

As India and Pakistan advance in the development of their strategic capabilities, they continuously review the key principles of their nuclear posture - primarily the principles of minimal credible deterrence. Both qualitative and quantitative characteristics of Indian and Pakistani nuclear arsenals change incessantly.

Although India is committed to no-first-use of nuclear weapons, and plans a retaliatory strike only, its nuclear forces are hardly survivable and reliable enough to endure potential adversary's nuclear attack.

India is applying huge resources for developing a nuclear force capable of mounting a retaliatory strike against major political, economic and military targets in the territory of potential adversary: Pakistan and China, under any circumstances. India is probably planning to develop a non-nuclear counterforce capability against Pakistan, as well as BMD system.

In contrast to India, Pakistan plans to use its nuclear weapons not only against political and economic centers, but also against conventional forces in India's territory, or in Pakistan's own territory, should they invade.

There is a danger that India's expanding capabilities in both defensive and offensive arms may provoke an asymmetric response on the part of Pakistan, including sabotage and terrorism. Pakistani experts realize that such response would have an extremely destabilizing effect, but this choice can be driven by internal factors and implemented despite the experts' opinion.

To prevent the worst scenario India, Pakistan with the help of the third states should pay most serious attention to preventing conflicts between the two countries, with a special emphasis on the prevention of possible use of nuclear weapons.

To this end the two countries could provide for partial transparency of their nuclear forces with regard to their capabilities and location, for example, by signing a verifiable agreement on the non-deployment of nuclear weapons in border areas. Even if such agreement makes no military sense (as it can quickly be reversed in a crisis situation), politically it could have a positive effect on Indo-Pakistani bilateral relations.

The two countries could also contribute to reducing the risk of a nuclear conflict by agreeing on mutual obligations not to deploy nuclear weapons in disputed areas.

These goals can also be achieved through mutual de-alerting of tactical missiles (i.e. through legal obligations to observe the existing practice of separate storage of nuclear warheads and their delivery means) and notifying any changes to this status in case of military exercises. This would not affect Indian and Pakistani ability to unilaterally change the level of alert of their medium-range, and possible future intercontinental missiles which they can target against each other and states outside South Asia.

India and Pakistan could also officially adopt national nuclear doctrines providing for the no-firs- use of nuclear weapons which would contribute to strengthening stability in the region. So far Pakistan has found this unacceptable due to India's advantage in general purpose forces (in fact, Russia and Israel are guided by the same doctrinal logic).

Therefore, future comprehensive military settlement will also require agreements limiting quantitative levels and location of the parties' general purpose forces, and envisaging confidence-building and transparency measures. Many elements of the experience of the US, Russia and China in limiting conventional forces and arms in Europe and along Russian-Chinese border could be used in South Asia.

It goes without saying that such agreements could be attained only after the parties have settled their territorial dispute and other issues of bilateral relations.

5. PROSPECTS OF ENGAGING INDIA AND PAKISTAN IN NUCLEAR ARMS LIMITATIONS

Alexei Arbatov

Political and military relations among the nine nuclear-weapon states differ greatly, which makes the environment within this group highly heterogenius. Many of these states are not tied by any relations at all, which is the case of Israel and North Korea (DPRK), who have nothing to negotiate with each other.

Therefore, nine-party multilateral negotiations appear to be highly unlikely. North Korea is viewed by many as an "illegal" nuclear-weapon state who withdrew from the Treaty breaching its provisions. There is also an "unacknowledged" nuclear-weapon state, Israel, who neither acknowledges nor denies the possession of nuclear arms. What would serve as a basis for negotiations to limit it?

This immediately leads one to a question of whether the number of parties should be brought down to seven instead of nine? Nevertheless, there is an almost inseparable linkage between the nuclear postures of India and Pakistan, while India's one is also strongly dependent on those of China. Hence, the nuclear forces of India and Pakistan, their levels and modernization are determined within these bilateral and trilateral formats.

They are by no means driven by the US and Russia's nuclear capabilities and their limitations. The US and Russia's nuclear arms reductions are strategically interdependent (despite their declarations at the UN), but are not linked in any way to the reduction of India's and Pakistan's forces.

So, should the negotiations involve five parties, rather than seven? The discussion of the nuclear weapons of the P-5 states is already underway. However, it will hardly ever transform in any practical negotiations on arms limitations. The US, the UK and France are allies in NATO, their forces complementing each other to a great extent. The arms limitation by the US depends on the limitations by Russia (and in the future also by China), but not those by the UK and France.

Limitation of China's forces and programmes cannot be weighed against those of the European nuclear-weapon states, as unlike these

states China is not allied to anyone and cannot enjoy anyone's security guarantees. China's nuclear forces are intended to deter the US, India and probably Russia by default, rather than the UK and France. Any possible limitations by China would depend on the limits observed by the US, Russia and India, but not any common criteria established within the P-5.

As soon as India is involved in this once again, the number of the parties turns to six instead of five. Yet it is pointless to engage India while ignoring Pakistan, which brings us back to seven. This is a vicious circle of the multilateral format.

Certainly, it is possible, and in fact rather pleasant to discuss these issues in the P-5 format. Why not? However, from a practical perspective such negotiations would produce another, yet smaller, conference on disarmament similar to the one in Geneva. The expansion of the list of participants from five to seven, eight, or even to nine would yield nothing. Rather, it would further affect the quality of the discussion. One can easily imagine what other states would say to Russia and the US and what reply those would give. The former would say that Russia and the US should engage in further reductions, promising to join them at some point in the future, while the latter would respond that further reductions cannot be pursued unless the third countries are engaged. This is another vicious circle of the multilateral format.

Nevertheless, the multilateralization of nuclear disarmament is still possible. This can be attained through establishing new bilateral fora of states, where negotiations would rest on a sound basis provided by mutual nuclear deterrence, rather than through engaging new states in the current negotiating process.

Indeed, the principle "I concede if you concede" underpins any disarmament deal. Israel has nothing to negotiate with North Korea, while the UK and France have nothing to negotiate with the US, although the reasons might differ. Other states, such as the US and China, or the UK and Russia, might have subjects for negotiations, but their nuclear forces are too unequal in strength, which is a major obstacle to agreements in this sphere that usually rest on approximate equality of parties and suggest the parties' equal rights in the balance of compromises.

In this context, India and Pakistan make an absolutely unique pair, a sort of a "dipole" in this multilateral nuclear balance including nine nuclear-weapon states and some more threshold countries. As a matter of fact, these two countries have relations of mutual nuclear

deterrence and possess approximately equal nuclear capabilities. They have certain nuclear parity, and despite some asymmetries and differences they are much more comparable than any other two nuclear-weapon states, save for the US and Russia.

The US-Russian nuclear arms reduction and limitation talks have historically rested upon this basis. At the same time, in South Asia there is high potential for the use of nuclear weapons. This should be a powerful incentive for everyone to facilitate the commencement of Indo-Pakistani dialogue, and subsequently their practical negotiations on nuclear arms limitations.

The forty years' experience of the USSR-US and Russian-US talks has demonstrated that nuclear weapons subject to agreements are a completely different matter as compared to weapons not subject to any agreements, transparency measures and limitations. Nuclear weapons make great political sense, and those of them subject to agreements pose lesser danger to peace than those that are not. Indeed, limitations and confidence-building and predictability measures reduce the possibility of their operational use and make it possible to forecast future strategic situation.

As for other things, Ambassador Sharma from India has rightly pointed to the lack of trust. Yet the trust cannot appear just out of the blue, it is gradually won through talks, agreements and complying with the agreements. There had been no trust between the US and the USSR until they engaged in negotiations on nuclear arms. Although things ran far from smoothly and serious differences emerged from time to time, during these four decades the two sides have built up notable trust in strategic sphere, and it were talks and treaties that have contributed most.

No doubt, in case of India of Pakistan one has to take into account the political situation and avoid making projects not grounded in reality. At the same time one should not confine themselves to the current political situation and neglect material basis of military relations: systems, forces and strategies, i.e. all those factors that come to the fore as soon as practical negotiations begin.

Time goes quickly and many things recede in memory, and successful negotiations are viewed in idyllic light later on. It should nevertheless be reminded that four decades back the US-USSR negotiations took place against an extremely unfavourable background of the war in Vietnam. As the talks drew to a close in 1972, the bombing of Hanoi and the mining of Haiphong Harbour followed, due to which

Soviet vessels were damaged. President Nixon's visit to Moscow, during which the SALT I Agreement and ABM Treaty were to be signed, was almost cancelled.

At that time many Soviet government and party officials believed that political situation precluded any agreements. If Leonid Brezhnev had heeded to those calls and refused to sign these instruments, the strategic arms limitation process would very probably have never started. Indeed, later on other complications followed, such as the fall of South Vietnam, the developments in the Horn of Africa, Angola, Nicaragua, Afghanistan, President Reagan's "Star Wars", the deployment of Pershing-2 missiles in Europe and so on. It is very probable that if the US and the USSR had not begun this process in 1972, they would have reached nothing in their nuclear arms reduction by now, or their progress would have been much more modest.

Therefore, although political relations and trust are pivotal, it is also important to engage in negotiations which in itself serve as a major means of improving political relations and confidence-building, rather than mere struggle for nuclear disarmament.

India and Pakistan could use the US-USSR 1987 Intermediate-Range Nuclear Forces Treaty (INF Treaty) as a model and conclude a similar agreement. Rather than envisaging "global double-zero", such agreement could set forth equal ceilings for missiles of certain range. Taking in consideration all the details and understandings that have been developed so far and enshrined in the INF Treaty the new arrangement could set forth certain equal levels for relevant weapons covered by the INF Treaty. This refers to ground-launched ballistic and cruise missiles with a range of 500 to 5,500 km, which prevail in India's and Pakistan's arsenals. As an alternative, the parties could begin with limiting their medium-range missiles (with a range of 1,000 to 5,500 km).

At the same time, Air Force, Navy and intercontinental ballistic missiles (ICBMs) would remain outside the scope of such agreement, and India would be able to rely on this capability in its balance of forces with China. Pakistan would also enjoy this right, although it will hardly decide to use it.

Such limitation by a common ceiling, whether of 50, 100 or 150 missiles, would in itself be a great step forward. This scheme seems worth considering, while certainly taking into account all other political and psychological aspects, including terrorism, instability within Pakistan, the two countries' territorial disputes, and so on.

It is generally known that India is concerned over China, as well as over Pakistan, as this is a matter of nuclear standoff in South Asia. However, it will hardly be possible to make China enter a trilateral agreement, as its nuclear forces are primarily intended to deter the US, while treating India as an afterthought.

Such strategic multi-target approach is quite common: so far the US and the USSR (Russia) have engaged in bilateral strategic arms limitation and reduction talks, although both countries' nuclear deterrence strategies were also directed to China, while the USSR and subsequently Russia in addition had the UK and France in mind. There is little practical possibility of trilateral negotiations among India, Pakistan and China, with US-Sino-Russian trilateral negotiations being equally unlikely. At the same time, bilateral US-China nuclear arms limitation talks could provide additional security guarantees for India, if the latter consent to limiting certain classes and types of its nuclear weapons under agreements with Pakistan. Similarly, the US-Russian agreements support, although indirectly, the security of China, the UK and France.

CONCLUSIONS

1. India and Pakistan are states of concern, whose nuclear status has not been recognized under the existing international law. Any attempt to legalize them as nuclear-weapon states would undermine the NPT-based nuclear non-proliferation regime. It would lead to the revision of the NPT logic and virtually put an end to the Treaty, destroying the entire NPT-based nuclear non-proliferation regime. Such dramatic alterations to the Treaty would logically demonstrate that the countries that failed to sign the NPT and place their nuclear facilities under IAEA safeguards but succeeded in developing their nuclear-weapons programmes can avoid all the pains of this option, accede to the Treaty as nuclear-weapon states and enjoy considerable political and military benefit. This would be a tempting example to all the threshold states and bring about a chain reaction of proliferation of nuclear weapons.

2. Due to the fact that India and Pakistan possess nuclear weapons, there exists a threat that any bilateral conflict may escalate to the use of nuclear weapons. At the same time, many experts insist that nuclear weapons, including in the Indian subcontinent, act as a deterrent. There is no definite answer to this question. Nuclear weapons might make the states behave more cautiously, but if they nevertheless engage in an armed conflict (as was the case in 1999, after both countries had conducted nuclear tests), its consequences would be much more catastrophic both on the regional and on the global scale.

3. Mutual deterrence between India and Pakistan is influenced by other nuclear-weapon states. Neither country has official nuclear doctrine, which makes it difficult to analyze objectively their perception of the role of nuclear weapons. However, with the tangle of contradictions, military confrontation and the intensive development of weapons, South Asia has become the world's region with the highest potential for the use of nuclear weapons.

4. India's nuclear status de-facto places it among the powers with both regional and global ambitions. From the military perspective, India's nuclear weapons are intended foremost to deter China which is

perceived as the country's main strategic rival. Besides, according to Indian nuclear doctrine — whatever unclear and ambiguous it is — India should be able to inflict unacceptable damage on Pakistan with a retaliatory nuclear strike.

5. Pakistan's nuclear status has been associated with the leadership in the Islamic world, as Pakistan is the only Muslim state possessing nuclear arms. What is more, it remains a potential donor of missile and nuclear technologies for other Islamic states.

Pakistani political and military leaders would hardly think of mounting a preemptive strike against India. However, taking in consideration specific characteristics of the balance of forces and the trends in the modernization of the two countries' nuclear weapons, it could be assumed that Pakistan plans for the first use of nuclear weapons against India's general-purpose forces in case of conflict. It is planning to inflict unacceptable damage with a retaliatory strike against India's densely populated cities in response to India's massive nuclear strike (after Pakistani first nuclear weapons use at the battlefield). This is a possible raison d'être of Pakistan's nuclear weapons.

In addition, there is a grave concern over the lack of stability within Pakistan which may under certain circumstances lead to the loss of control over the country's nuclear arsenal or some of its parts.

6. Some of the recent developments lead to further aggravation of the situation in the region. Indeed, the US-India agreement on civilian nuclear cooperation and the 2008 decision by the Nuclear Suppliers Group (NSG) to exempt India from export control restrictions, have had considerable effect both in political terms and in terms of security. Both of these events have been viewed as a step towards India's legitimization as a nuclear-weapon state.

India's efforts to develop national missile defense system that in theory can challenge Pakistan's nuclear deterrent provides additional incentive for arms race both within the region and in the Chinese-Indian context.

Indo-Pakistani relations are characterized by a comparably low (as compared to the NPT nuclear-weapon states) level of the "nuclear culture". As the two countries implement no confidence-building measures as to the type of weapons carried by their missiles, a conventional missile launched by any of the parties may be mistaken for a nuclear one and bring about the other side's nuclear response.

7. Hopefully there are signs that India and Pakistan have engaged in mutual "political sounding" in order to have a better idea of each other's perceptions of nuclear policy and military preparations. It is also very encouraging that each of the parties observes their unilateral moratoria on nuclear tests.

India and Pakistan have no arrangements on arms control. At the same time, Delhi and Islamabad have signed a number of agreements on confidence-building measures, which demonstrates the parties' ability to agree.

8. A set of measures should be taken in order to stabilize Indo-Pakistani bilateral relations and to prevent armed conflicts, in particular those involving the use of nuclear weapons. To this end the two countries could provide for partial transparency of their nuclear forces as to their capabilities and location, for instance, through signing a verifiable agreement on the non-deployment of nuclear weapons in border areas.

9. The two countries could also contribute to reducing the risk of a nuclear conflict by mutual obligations not to deploy nuclear weapons in disputed areas. These goals can also be achieved through mutual de-alerting of tactical missiles (i.e. through legalizing the existing practice of separate storage of nuclear warheads and their delivery means) and notifying any changes to their status in case of military exercises.

10. As an illustration of possible arms control agreement, India and Pakistan could use the US-USSR 1987 INF Treaty as a model and conclude a similar deal. However, rather than envisaging "global double-zero", it might utilize many details and understandings of the INF Treaty and establish a certain equal level (of 50, 100 or 150 missiles) for relevant weapons covered by the INF Treaty. The limitations could apply to ground-launched ballistic and cruise missiles with a range of 500 to 5,500 km (or at least 1,000 to 5,500 km to begin with), which prevail in India's and Pakistan's arsenals.

At the same time, air, naval arms and ICBMs would remain outside the scope of such agreement, and India would be able to rely on them in its balance of forces with China.

11. China directs its nuclear forces primarily to deter the US, while treating India as "collateral". There is little practical possibility of trilateral negotiations among India, Pakistan and China, and trilateral US-China-Russia negotiations are equally unlikely. At the same time,

bilateral US-China nuclear arms limitation agreements could provide additional security guarantees for India, if the latter consent to enter into agreements with Pakistan limiting certain classes and types of its nuclear weapons.

12. India does not envision nuclear arms control or disarmament except in multilateral negotiations under the UN auspices with participation of all nuclear weapon states. This specific position smacks of propaganda rather than a practical attempt to tackle the issue and appears to be an excuse for India's reluctance to engage in bilateral talks (matched by Pakistan's reluctance to do so).

This, nevertheless, opens certain mediation possibilities for the P-5 and international agencies with the view to strengthening stability in Indo-Pakistani nuclear relations and developing both bilateral and multilateral dialogue on a wide range of nuclear security issues in South Asia.

ANNEX 1

Abbreviations

BDL	Bharat Dynamics Limited
BMD	ballistic missile defense
CD	Conference on Disarmament
CTBT	Comprehensive Nuclear Test-Ban Treaty
DRDO	Defense Research and Development Organization
FMCT	Fissile Material Cut-off Treaty
IAEA	International Atomic Energy Agency
ICBM	intercontinental ballistic missile
IGMDP	Integrated Guided Missile Development Program
IMEMO RAN	Institute of World Economy and International Relations of the Russian Academy of Sciences
INC	Indian National Congress
INF Treaty	Intermediate Nuclear Forces Treaty (Treaty between the United States of America and the Union of Soviet Socialist Republics on the Elimination of their Intermediate-Range and Shorter-Range Missiles, 1987)
ISI	Inter-Services Intelligence (Pakistan)
LAC	Line of Actual Control
LeT	Lashkar-e-Taiba
MRBM	medium-range ballistic missile
NASA	National Aeronautics and Space Administration
NCA	National Command Authority (Pakistan)
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
NTI	Nuclear Threat Initiative
NWFZ	nuclear weapon free zone
PLA	People's Liberation Army (China)
PRC	People's Republic of China
R&D	research and development

SAARC	South Asian Association for Regional Cooperation
SLBM	submarine-launched ballistic missile
SLCM	submarine-launched cruise missile
UN	United Nations

ANNEX 2

List of Participants in the Conference Moscow, IMEMO RAN, October 18, 2012

1. Alexander A. Dynkin, Director of IMEMO RAN, Academician of the Russian Academy of Sciences.
2. Askar Akbayev, First Secretary, Embassy of Kazakhstan.
3. Alexei G. Arbatov, Head of the Center for International Security, IMEMO RAN, Academician of the Russian Academy of Sciences.
4. Ildar A. Akhtamzyan, Associate Professor, Department of International Relations and Foreign Policy of Russia, Moscow State Institute of International Relations (University) of the Ministry of Foreign Affairs of Russia (MGIMO(U)).
5. Tasnim Akhtar, Second Secretary, Embassy of the United Kingdom.
6. Eldar Bayramov, First Secretary, Embassy of Azerbaijan.
7. Vladimir G. Baranovsky, Deputy Director of IMEMO RAN, Corresponding Member of the Russian Academy of Sciences.
8. Oksana L. Bosyuk, Third Secretary, Embassy of Ukraine in Russia.
9. Robin Brooks, First Secretary, Embassy of the United States.
10. Evgeny P. Buzhinsky, Senior Vice President, PIR Center, Lieutenant General (rtd).
11. Petr G. Cheremushkin, Political Section, Embassy of the United States.
12. Dmitry A. Chizhov, Researcher, Strategic Studies Section, Center for International Security, IMEMO RAN.
13. Margaret Chung, PHD Student, Department of Political Theory, Moscow State Institute of International Relations of the MFA of Russia.
14. Gennady I. Chufrin, Board of Directors, IMEMO RAN, Corresponding Member of the Russian Academy of Sciences.
15. Eugeny A. Druzin, Reporter, Voyenno-Promyshlenny Kurier newspaper.
16. Vladimir Z. Dvorkin, Chief Researcher, Center for International Security, IMEMO RAN, Major-General (rtd.).

17. Anatoly S. Dyakov, Senior Researcher, Center for Arms Control, Energy and Environmental Studies.
18. Kobi Haviv, Defense Attaché, Embassy of Israel, Colonel.
19. Vyacheslav M. Ivanov, political observer, Interfax news agency.
20. Stanislav M. Ivanov, Principal Research Associate, Center for International Security, IMEMO RAN.
21. Alexander A. Khramchikhin, Deputy Director, Institute for Political and Military Analysis.
22. Elina V. Kirichenko, Director, Center for North American Studies, IMEMO RAN.
23. Roman Kowalczuk, First Councellor, Embassy of Poland in Russian Federation.
24. Mikhail B. Kustovsky, First Secretary, Department for Security Affairs and Disarmament, Ministry of Foreign Affairs of Russia.
25. Yevgeni V. Miasnikov, Director, Center for Arms Control, Energy and Environmental Studies.
26. Vladimir E. Novikov, Principle Research Associate, Russian Institute for Strategic Studies.
27. Sergey K. Oznobishchev, Head of Sector, Center for International Security, IMEMO RAN.
28. Alexander N. Perendzhiev, Associate Professor, Department of Political and Social Science, Russian Plekhanov Economic University.
29. Alexander V. Radchuk, Adviser to the Head of the General Staff of the Armed Forces of the Russian Federation, Colonel (reserve duty).
30. Vladimir P. Radyukhin, newspaper reporter, The Hindu (India).
31. Natalia P. Romashkina, Researcher, Center for International Security, IMEMO RAN.
32. Vladimir I. Rybachenkov, Principal Research Associate, Center for Arms Control, Energy and Environmental Studies, Moscow Institute of Physics and Technology.
33. Leonid F. Ryabikhin, Head of Sector, Research Center, Committee of Scientists for Global Security.
34. Vladimir I. Sazhin, Senior Researcher, Institute of Oriental Studies of the Russian Academy of Sciences (IVRAN).
35. Peter Schroeder, Second Secretary, Embassy of the United States.

36. Sheel Kant Sharma, Distinguished Fellow, Centre for Air Power Studies (New Delhi, India), Ambassador Extraordinary and Plenipotentiary.
37. Alexander I. Shumilin, Director, Center for Analysis of Middle East conflicts, Institute of the US and Canadian Studies of the Russian Academy of Sciences (ISK RAN).
38. Vladimir Yu. Sizov, Head, Center for Military and Strategic Studies, Institute of the US and Canadian Studies of the Russian Academy of Sciences (ISK RAN).
39. Yuri V. Tavrovsky, Editor-in-Chief, Diplomat magazine.
40. Petr V. Topychkanov, Senior Researcher, Center for International Security, IMEMO RAN.
41. Sergey V. Tselitsky, Researcher, Strategic Studies Section, Center for International Security, IMEMO RAN.
42. Anatoly D. Tsyganok, Head of Center for Military Forecasting, Institute for Political and Military Analysis, Colonel (reserve duty).
43. Vyacheslav I. Trubnikov, Board of Directors, IMEMO RAN, General of the Army (rtd.), Ambassador Extraordinary and Plenipotentiary.
44. Sergey S. Veselovsky, Associate Professor, Department of World Political Processes, Moscow State Institute of International Relations of the MFA of Russia.
45. Vadim I. Vladimirov, Senior Researcher, Center for International Security, IMEMO RAN.
46. Boris M. Volkhonsky, Senior Researcher, Sector of Asian Studies, Russian Institute for Strategic Studies.
47. Alexander V. Vorontsov, Head, Section of Korean and Mongolian Studies, Institute of Oriental Studies, Russian Academy of Sciences.
48. Jacek Wesolowski, Deputy Defense Attaché, Embassy of Poland, Moscow, Lieutenant-Colonel.
49. Vladimir V. Yevseev, Director, Center for International Security, IMEMO RAN, Lieutenant Colonel (rtd).
50. Marianna G. Yevtodyeva, Senior Researcher, Center for International Security, IMEMO RAN.
51. Victor I. Yesin, Chief Researcher, Institute of the US and Canada Studies, Russian Academy of Sciences, Colonel General (rtd).

52. Alexander Z. Zhebin, Head of Center for Korean Studies, Institute of the Far Eastern Studies of the Russian Academy of Sciences.
53. Efim L. Zhigun, Director, Institute of Middle East Studies.
54. Irina D.Zvyagilevskaya, Professor, Department of Oriental Studies, Moscow State Institute of International Relations of the MFA of Russia.