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***Nuclear Stability in Asia
Strengthening Order in Times of Crises***

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***Session II:
Stability in South Asia***

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Stability in South Asia

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1. Has South Asia become a more stable / threatened zone with inclusion of more sophisticated nuclear technologies and investments in civil nuclear energy?

Both India and Pakistan strive to develop a nuclear triad using aircraft and ground-launched missiles as delivery vehicles for their nuclear weapons and also to 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 Shamsheer tactical strike fighters and multi-purpose SU-30MKI fighters may also be used for this purpose. The importance of this component of India's nuclear triad should not be exaggerated because the country still lacks air-based nuclear cruise missiles, as well as a modern air and missile defense system that would reliably protect strategic aircraft. Pakistan can deploy its nuclear warheads on multi-purpose F-16A/B and Mirage 3/4 fighters. Some Indian experts believe that this role may also be assigned to Sino-Pakistani JF-17 multi-purpose fighter equipped with Russian RD-93 engine.

Unlike India, Pakistan is ready to arm its fighters with Ra'ad (Hatf-8) cruise missiles in the foreseeable future. The missile is currently 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". 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. 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 2017. 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.

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.

Table 1: India's Arsenal of Ballistic Missiles

Missile	Range in Kilometers (Approx. Miles)	Payload in Kilograms	Date of Entry Into Service
Prithvi-I	150 (93)	1000	1998
Prithvi-II	350 (217)	500–700	2003
Agni-I	700 (435)	1,000	2003
Agni-II	2,000 (1,243)	1,000	2003
Agni-III	3,000 (1,864)	1,500	2010–2011

Table 2: Pakistan's Arsenal of Ballistic Missiles

Missile	Range in Kilometers (Approx. Miles)	Payload in Kilograms	Date of Entry Into Service
Hatf-I/1A/1B	70/100/100 (43/62/62)	500	1989 /1995/2001
Hatf-II (Abdali)	180 (112)	500	2002 (?)
Hatf-III (Ghaznavi)	290 (180)	500	2004 and 2007
Hatf-IV (Shaheen-I)	700 (435)	500	2003
Hatf-V (Ghauri)	800–1,500 (497–932)	1,300	2003
Hatf-VI (Shaheen-II)	over 1,000 (621)	500–800	2008 (?)

India is applying huge resources for the 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 a response would have an extremely destabilizing effect, but this choice can be driven by internal factors and implemented despite the experts' opinion.

2. Is Pakistan's "nuclear friendship" with China a cause for concern, or does it contribute to stability in South Asia?

The lack of missile production capacities appears to hamper Pakistan's capability to develop its nuclear arsenal. Some analysts believe that Pakistan can independently manufacture the airframe, motorcases, solid propellant grains, nozzle, and warhead sections but has to import other components from China and North Korea (according to some assessments, in 1983-1984, China may have provided Pakistan with designs of a nuclear explosive device).

If this is indeed the case, then without foreign assistance, Pakistan's limited resources will not allow it to successfully compete in a nuclear race against India, which boasts a developed military-industrial complex.

Moreover, in developing its military potential, India has to be mindful of nuclear threats coming from both Pakistan and China. Thus, the disparities between India's and Pakistan's military-industrial complexes and their military and political environs will result in an ever-increasing imbalance between their nuclear arsenals.

In the absence of bilateral agreements between Pakistan and India, this growing imbalance may prompt Pakistan to take asymmetric steps to compensate for its perceived vulnerability. Asymmetric measures can include electronic warfare and sabotage operations targeting strategic assets of India. Only dialogue between the two countries can help reduce the threats to regional stability.

3. Do nuclear doctrines in South Asia need recalibration?

There are many evidences that India and Pakistan see the principle of minimum nuclear deterrence as a basis for their nuclear doctrines.

However, there are some well-known ambiguousness' in the minimum nuclear deterrence of India and Pakistan. The first unclear issue related to India's position is how the stated highest credibility of its nuclear forces can be achieved without raising the level of the nuclear deterrent. In attempting to increase the credibility and effectiveness of the deterrent, India's nuclear doctrine does not limit itself to "minimum nuclear deterrence." The second unclear issue is related to India's no-first-use obligation. Today, when India does not possess an assured second-strike capability (for example, submarine-launched ballistic missiles, or SLBMs) and is still working on its own ballistic missile defense (BMD) system, many experts doubt that New Delhi would strictly adhere to a no-first-use obligation.

In the case of Pakistan, minimum deterrence cannot be defined in static numbers. In the absence of mutual restraints, the nuclear arsenal of Pakistan and its deployment pattern can be changed due to risks of preemption and interception of Indian nuclear systems. Pakistan secured the right to increase its number of nuclear warheads and expand its delivery systems, which is why it refused to support the CTBT and FMCT (even if India signs and ratifies these treaties, Pakistan will not be interested in following suit, in the opinion of some Pakistani experts). In current circumstances Pakistan will hardly use this right; nevertheless, Islamabad is keeping this option open.

The ambiguousness could be explained through the process of evolution of strategies of India and Pakistan and the development of military capabilities of both states. These processes could cause growing discrepancy in comprehension of strategic issues, including the nuclear weapons role. Therefore the concept like bilateral minimum nuclear deterrence could be questionable in South Asia. Even the term "South Asia" is an object of discussions.

Many strategists in India and Pakistan believe that the South Asia is inappropriate term.

"I always found the term South Asia geopolitically misleading. It is considered more politically correct to call the Indian sub-continent South Asia to cater to the sensibilities of those who want to project their political personality shorn off the Indian connection."

(Ambassador Kanwal Sibal, Challenges for South Asia, May 30-31, 2012)

“South Asia is misleading (term). This is an invalid strategic constituency.”

(Commodore C. Uday Bhaskar, India’s Role, October 31, 2012)

Official statements reflect India’s ambition to go beyond the South Asian region. For example, Admiral Suresh Mehta, Chief of Naval Staff in 2006-2009, argued that “we are not only looking at countering threats but to protect the country’s economic and energy interests. This task has extended our area of operations. This might necessitate our operating in distant waters.”

In the 2006 Foreign Affairs Journal, C Raja Mohan offered his vision of strategic environment and objectives of India. The analyst used the scheme of three circles:

1. In the first circle, which includes close neighbors India, it wants the leadership and the possibility to prevent interference by third countries;
2. In the second circle, which includes the extended neighborhood and the Indian Ocean, India tries to balance the influence of other countries and to avoid damaging its interests;
3. In the third circle, which is a whole world, India is committed to the status of a great power.

The objectives of Indian security lie in these circles. It means that India can be ready to use the nuclear weapons in these circles if necessary. This readiness was proved by George Fernandes, Defense Minister of India in 1999-2004: “China with its vast nuclear arsenal, Pakistan with its nuclear weapons and delivery system capability, America perching in Diego Garcia and 8 other Asian countries possessing missiles is quite a grim security scenario.” If India’s potential adversaries include not only China and Pakistan, but also a number of other countries, how this environment might affect the minimum nuclear deterrence of India?

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.

- 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.

To prevent the worst scenario in South Asia, India and 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 short-range 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 the 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-first-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.