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PETER ТОПУЧКАНОВ

NUCLEAR WEAPONS AND STRATEGIC SECURITY
IN SOUTH ASIA

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This publication explores South Asian strategic security on a regional level, the role of nuclear weapons in Indo-Pakistani relations, the external and internal factors shaping these countries' nuclear postures, and security-enhancing efforts emanating from both inside and outside the region.

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ABBREVIATIONS

ASEAN – Association of Southeast Asian Nations
BMD – Ballistic missile defense
CTBT – Comprehensive Nuclear Test Ban Treaty
DPRK – Democratic People’s Republic of Korea
ECO – Economic Cooperation Organization
FMCT – Fissile Material Cutoff Treaty
GDP – Gross domestic product
IAEA – International Atomic Energy Agency
MTCR – Missile Technology Control Regime
NPT – Non-Proliferation Treaty
NSG – Nuclear Suppliers Group
OIC – Organization of the Islamic Conference
POSSE – Program on Strategic Stability Evaluation
SAARC – South Asian Association for Regional Cooperation
SCO – Shanghai Cooperation Organization
SIPRI – Stockholm International Peace Research Institute
SLBM – Submarine-launched ballistic missile
START – Strategic Arms Reduction Treaty
WMD – Weapon of mass destruction

DEFINING STRATEGIC SECURITY: A REGIONAL PERSPECTIVE

The term “strategic security” is ambiguous because it embraces a broad range of issues. It may refer to national, international, or global security issues. For example, on May 31, 2007, then Russian President Vladimir Putin used this term as a synonym for “strategic balance” when describing Russia’s nuclear weapons development programs and Russia’s relations with the United States and European countries.¹ Such an understanding of “strategic security” is close to the classic meaning of the term “strategic stability,” which is based on mutual assured retaliation and a mutually acceptable ratio of the sides’ strategic offensive and defensive arms.²

This understanding may have formed the basis of the proposal to China by U.S. Secretary of Defense Robert Gates in January 2011 to launch a strategic security dialogue on nuclear forces, missile defense systems, space, and cyber warfare issues. The ambiguity of the term “strategic security” was apparent in the response of Chinese Defense Minister General Liang Guanglie, who insisted on limiting the dialogue to counterpiracy, counterterrorism, and peacekeeping (this response also undoubtedly signaled an unwillingness to discuss issues relating to nuclear weapons).³

The ambiguity of the term hinders official negotiations, but it can be useful for the analysis of issues affecting nuclear security in South Asia. Many Indian and Pakistani authors argue that regional nuclear security cannot be described only in the narrow sense of strategic stability because it is affected by political, military, diplomatic, economic, and cultural factors.⁴ Considering nuclear weapons as the core of strategic security in South Asia, I will use this term in the broader sense for the purposes of this study, including the analysis of political, military, and diplomatic factors of internal and external origin.

CHALLENGES TO STRATEGIC SECURITY IN SOUTH ASIA

India-Pakistan relations are usually described in terms of conflict, rivalry, or competition. These characteristics have a historical basis: after India and Pakistan gained independence in 1947, there were four wars and major military conflicts between the two countries (in 1947, 1965, 1971, and 1999). The Kashmir dispute is one of the main sources of regional instability. From India’s perspective, it was during the Kashmir dispute that Pakistan started using terrorist groups as part of its regional strategy. From this point of view, the activity of these groups brought several benefits to Pakistan, including strategic (terrorists operating in India provided “strategic depth” and “early warning capabilities” to Pakistan),⁵ military (they were a low-cost

1 “One of the most important problems is the problem of strategic security. Our American partners withdrew from the Anti-ballistic Missile Treaty. We immediately warned them that we would take retaliatory steps to preserve the strategic balance in the world. This is extremely important for maintaining world peace. And our responses will be asymmetrical.

Yesterday we completed a regular test of a new strategic ballistic missile with a large number of warheads...

We have signed and ratified the Adapted Conventional Armed Forces in Europe Treaty. We are fully implementing it... But what about our partners? What are they doing?” (“Vladimir Putin and Karolos Papoulias,” Research Institute for European and American Studies, Moscow, May 31, 2007, available at www.rieas.gr/research-areas/greek-studies/266.html [accessed Apr. 31, 2011]).

2 John D. Steinbruner, “National Security and the Concept of Strategic Stability,” *Journal of Conflict Resolution* 22, no. 3 (1978): P. 411; Alexei Arbatov, Vladimir Dvorkin, Sergey Oznobishchev, and Alexander Pikaev, *Strategic Stability after the Cold War* (Moscow: IMEMO, 2010), P. 12.

3 B. Gertz, “China Spurns Strategic Security Talks with U.S.,” *Washington Times*, Jan. 10, 2011.

4 For example, Zafar Iqbal Cheema, *Indian Nuclear Deterrence: Its Evolution, Development, and Implication for South Asian Security* (Karachi: Oxford University Press, 2010), P. 436; Sumit Ganguly and Paul Kapur, *India, Pakistan, and the Bomb: Debating Nuclear Stability in South Asia* (Delhi: Columbia University Press, 2010), PP. 80-81.

5 John Wilson, “The Jihadi Factor in India-Pakistan Peace Process,” *ORF Issue Brief* 6, May 2006, P. 2, available at http://www.orfonline.org/cms/export/orfonline/modules/issuebrief/attachments/ib060500_1162634807719.pdf.

instrument with which to wage a proxy war), and political benefits (they were a means to apply indirect pressure on India and intervene in its domestic affairs).

Regional security was also affected by other problems, namely, sharing water from the Indus and territorial disputes over the Rann of Kutch and the Siachen glacier. Some authors believe these three issues have been resolved successfully,⁶ but in the opinion of a number of Pakistani diplomats and experts interviewed for this report, the Indus water dispute can result in an escalation of tensions in South Asia. All of these problems created a high potential for conflict.

In the 1980s, in response to these challenges, India and Pakistan created something described as a “recessed deterrence” (deterrence without nuclear weapons, but on the nuclear threshold).⁷ The evolution of this situation into a state of nuclear deterrence in 1998 may be considered a response to the security challenges as well as a security challenge in itself. India and Pakistan appeared to get into a stability-instability situation.⁸

EXTERNAL CONDITIONS OF THE NUCLEAR CHOICE

A comparison of the external conditions shaping the nuclear choices of India and Pakistan discloses the typical external factors pushing “threshold” states toward obtaining nuclear weapons. Among these factors are threats to a regime’s survival and the attractive high status of nuclear power.

From the beginning, there were differences in the factors driving the nuclear programs of India and Pakistan. The development of India’s nuclear program was driven by the following factors:

1. The confrontation with Pakistan, which has led to repeated military conflicts between them.
2. The increasing tensions with China that followed the 1959 Tibet incident, India’s defeat in the military conflict with China in 1962, China’s 1964 entry into the “nuclear club,” and ongoing territorial disputes between India and China. India perceived a particular threat in the development of military cooperation between China and Pakistan.
3. The high level of international tensions during the Cold War confrontation between the United States and the USSR. (India was not concerned with the possible use of U.S. or Soviet nuclear forces against it.)

The last factor was related not only to the uncertainty in the period of the global nuclear arms race but also to the pursuit of a status similar to that of the great powers, when nuclear weapons were regarded as its main attribute.

The main factor driving Pakistan’s nuclear program was the confrontation with India. That is why Pakistan almost copied India’s path. Even Pakistan’s response to India’s nuclear test in 1998 was symmetrical: within two days, Pakistan had exploded six nuclear devices. India carried out five explosions in 1998, but earlier, in 1974, it had conducted a “peaceful nuclear explosion.”

The transition from a civilian nuclear program to a military one was not exclusively the result of the Indian factor. Pakistan sought to strengthen its position in the

6 Muhammad Rizwan, *Nuclear India-Pakistan and Present World Order* (Allahabad: Anubhav Publishing House, 2009), p. 25.

7 Naeem Salik, *The Genesis of South Asian Nuclear Deterrence: Pakistan’s Perspective* (Karachi: Oxford University Press, 2009), p. 241; Ashley J. Tellis, *India’s Emerging Nuclear Posture: Between Recessed Deterrence and Ready Arsenal* (Santa Monica, CA: RAND Corp., 2001), p. 89.

8 Michael Krepon and Chris Gagné, eds., *The Stability-Instability Paradox: Nuclear Weapons and Brinkmanship in South Asia* (Washington, DC: Henry L. Stimson Center, June 2001), p. VII.

Islamic world by becoming the first Islamic republic to have nuclear weapons. To achieve this goal, Pakistan received assistance from wealthy Arab states: Saudi Arabia, Libya, and the United Arab Emirates.

It is important that India and Pakistan crossed the nuclear threshold having many conflicts with and claims against each other, which made it difficult for them to create a situation of strategic stability in a narrow sense. By the time of the nuclear tests they had already created a situation of recessed deterrence.⁹

CHALLENGES TO STRATEGIC STABILITY IN SOUTH ASIA

Many experts in India and Pakistan believe that each country's development of nuclear weapons did achieve the major goal of deterring its opponent from undertaking a nuclear strike. This "nuclear optimism" can be accepted if the concept of nuclear deterrence is limited to minimal nuclear deterrence, which is part of the nuclear postures of both states. However, there are two counterarguments. First, nuclear weapons did not prevent conflicts between India and Pakistan, including the Kargil armed conflict in 1999. These conflicts lowered the threshold of a nuclear war. According to the opinion of several senior experts at some Indian think tanks, this level is lowered further by every terrorist attack in India that can be linked to Pakistan.

Second, it can be assumed that the absence of military parity in South Asia and the relatively underdeveloped nuclear weapons of India and Pakistan do not allow these states to establish an efficient mutual nuclear deterrence (see Figures 1 to 5 and Table 1). India and Pakistan have relative parity only in nuclear force numbers. However, this parity is devalued by the wide differences in their nuclear postures.

Fig. 1. Military Expenditures in India and Pakistan, 1990–2010 (\$U.S. mln)

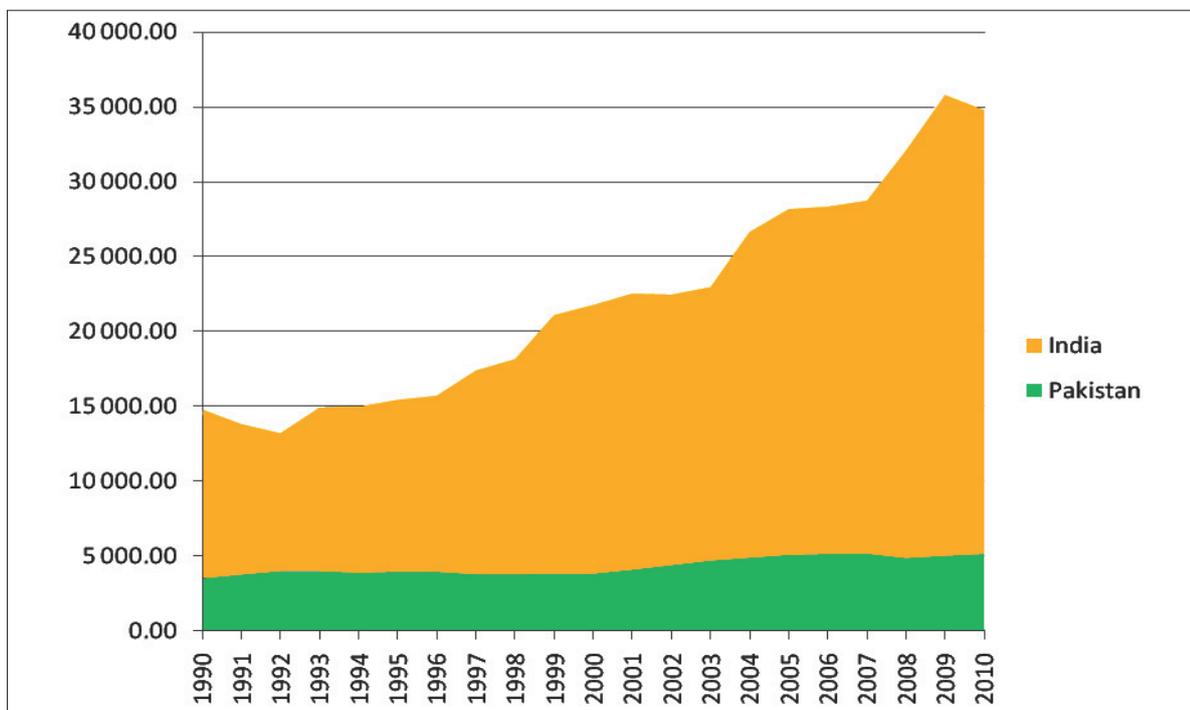


Chart adapted from the following sources: *The SIPRI Military Expenditure Database*, available at www.milexdata.sipri.org (accessed Apr. 30, 2011); World Bank, *World DataBank: World*

⁹ Salik, *The Genesis of South Asian Nuclear Deterrence*, P. 241; Tellis, *India's Emerging Nuclear Posture*, P. 89.

Development Indicators (WDI) & Global Development Finance (GDF), available at www.data-bank.worldbank.org/ddp/home.do (accessed Apr. 30, 2011).

Fig. 2. GDP and Military Expenditures in India and Pakistan, 2010 (\$U.S. mln)

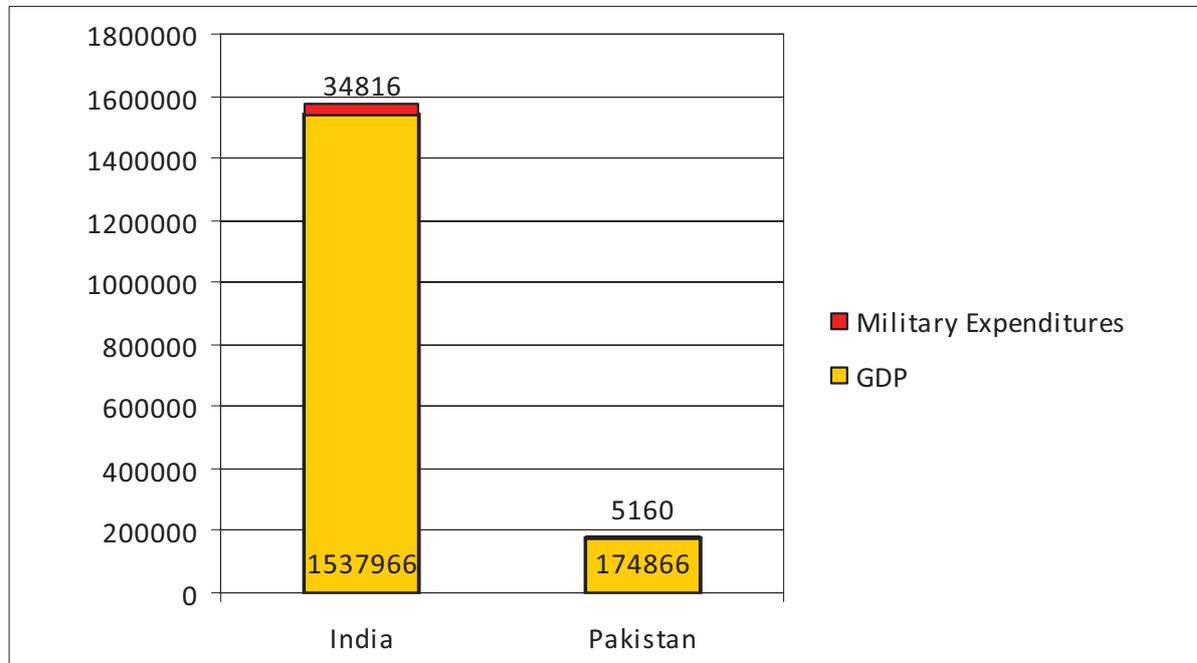
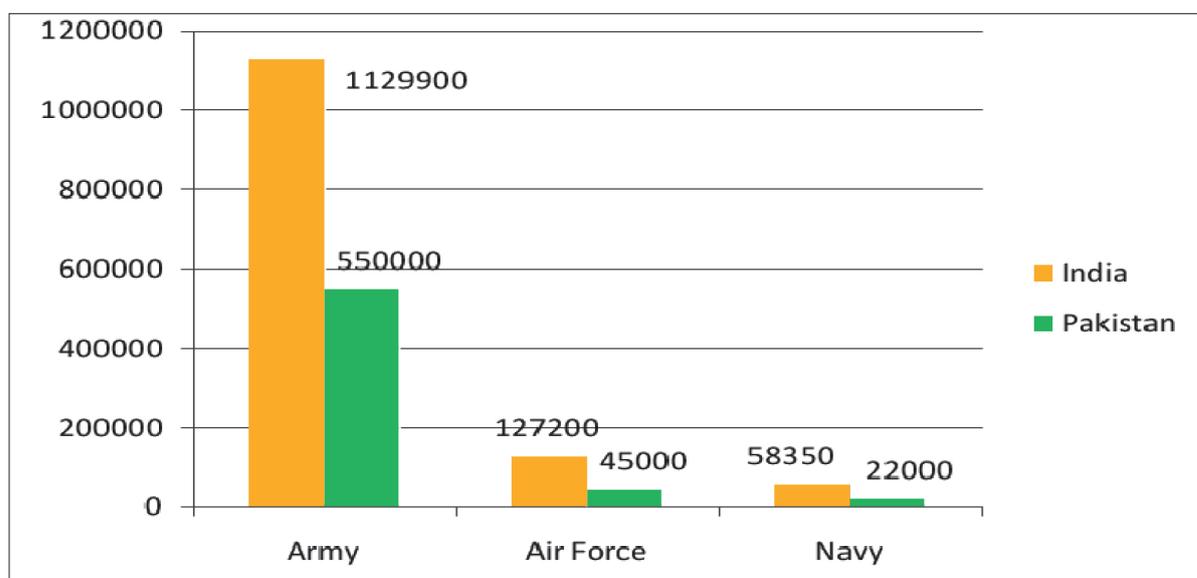


Chart adapted from the following sources: The SIPRI Military Expenditure Database, available at www.milexdata.sipri.org (accessed Apr. 30, 2011). World Bank, World DataBank: World Development Indicators (WDI) & Global Development Finance (GDF), available at www.data-bank.worldbank.org/ddp/home.do (accessed Apr. 30, 2011).

Fig. 3. Active Military Manpower in India and Pakistan, 2010



*Chart adapted from the following sources: Anthony H. Cordesman, Arleigh A. Burke, and Robert Hammond, *The Military Balance in Asia: 1990–2010* (Washington, DC: CSIS, 2010), PP. 94–108.*

Fig. 4. Military Equipment in India and Pakistan, 2010

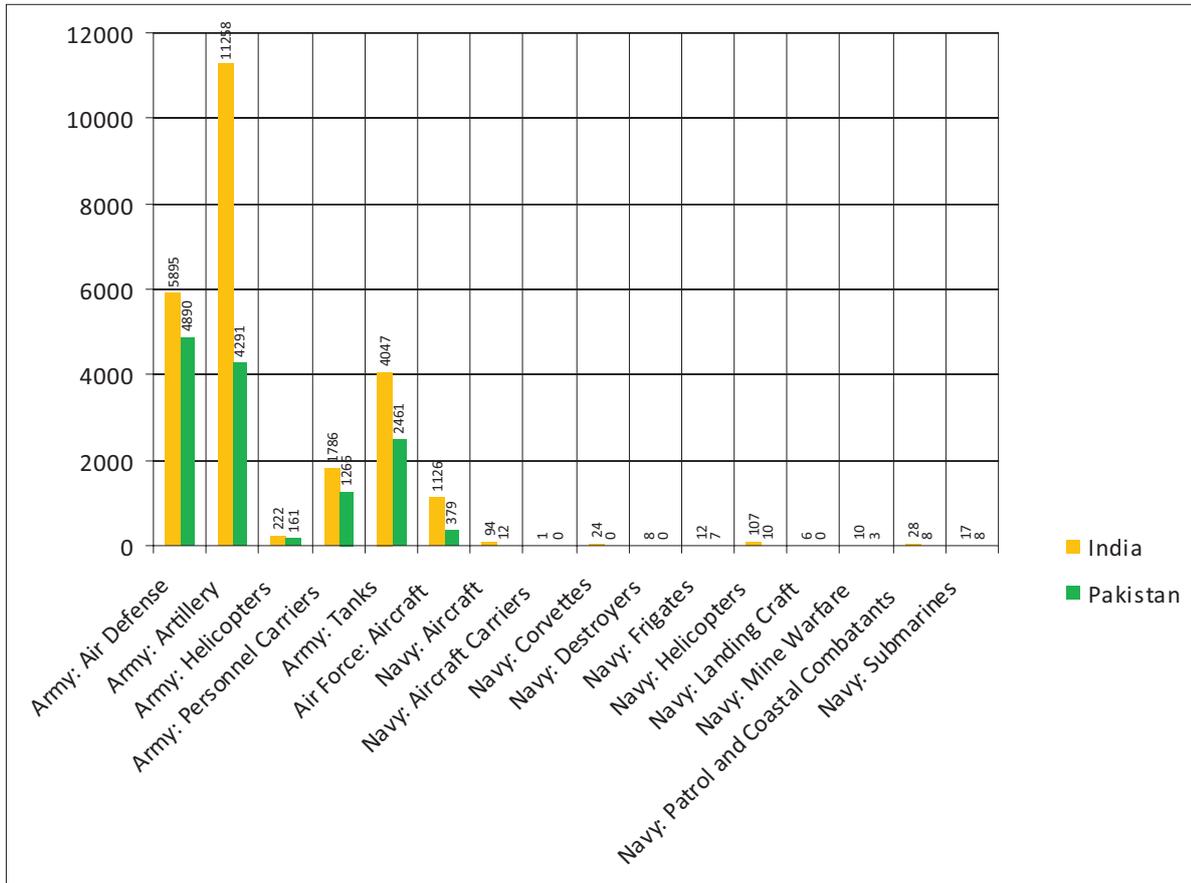


Chart adapted from the following sources: Anthony H. Cordesman, Arleigh A. Burke, and Robert Hammond, *The Military Balance in Asia: 1990-2010* (Washington, DC: CSIS, 2010), PP. 94-108.

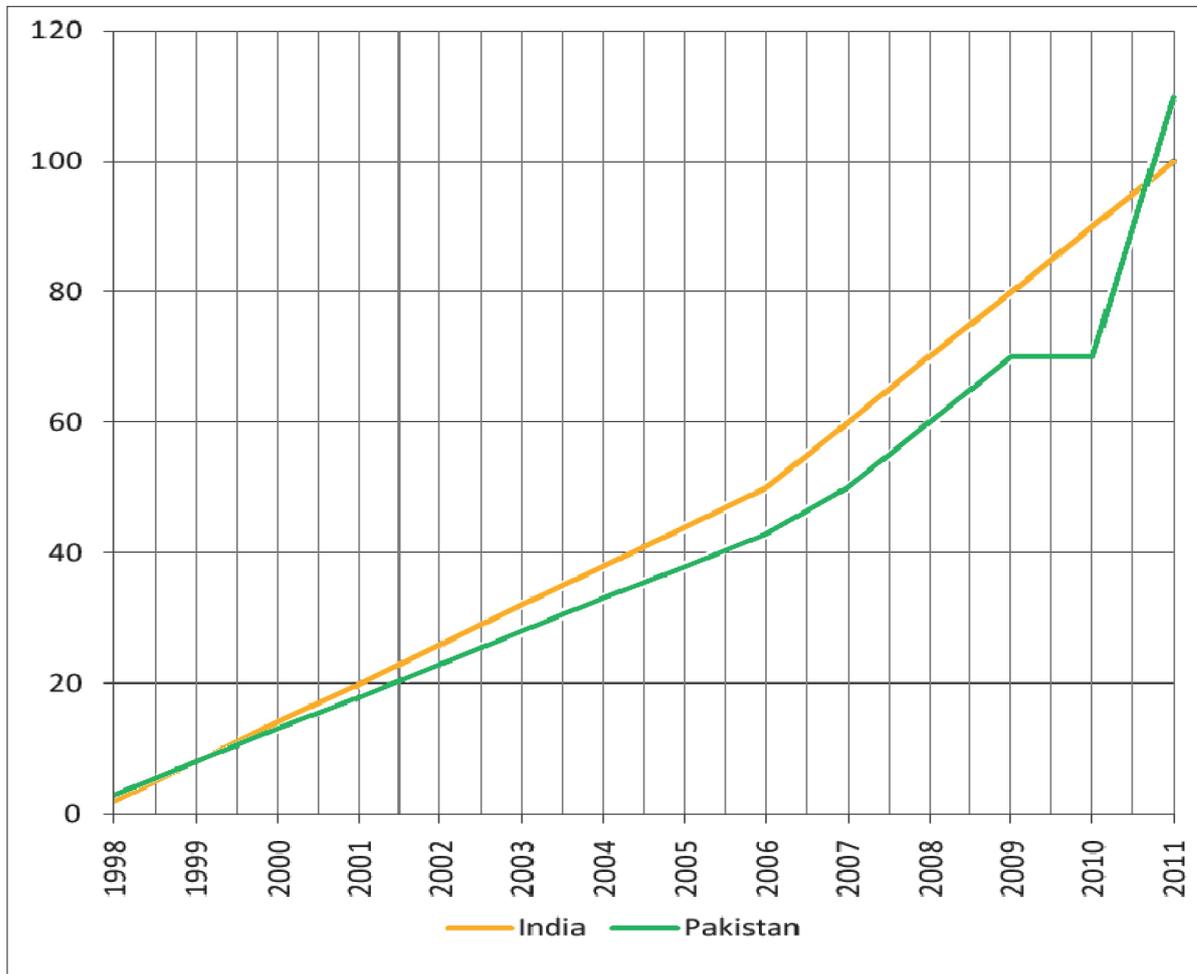
Fig. 5. Nuclear Build-Up in South Asia, 1998–2011

Chart adapted from the following sources: Robert S. Norris and Hans M. Kristensen, "Pakistani Nuclear Forces, 2009," *Bulletin of the Atomic Scientists* 65 (Sept./Oct. 2009): P. 84; Robert S. Norris and Hans M. Kristensen, "Indian Nuclear Forces, 2010," *Bulletin of the Atomic Scientists* 66, no. 5 (2010): P. 79; Robert S. Norris and Hans M. Kristensen, "Global Nuclear Weapons Inventories, 1945–2010," *Bulletin of the Atomic Scientists* 66 (Jul./Aug. 2010): P. 82.

Table 1. Nuclear Weapons Capabilities in South Asia, 2011

	India	Pakistan
Stockpiles of Weapons-Grade Nuclear Materials (Estimate)		
Weapons-grade Pu (no. of warheads)	334-504 kg (75-110 warheads)	36-80 kg (10-20 warheads)
Weapons-grade U (no. of warheads)	?	1,100-1,400 kg (50-110 warheads)
Nuclear Weapons Delivery Vehicles		
Aviation (range [km]; payload [kg])	Mirage 2000H (1800; 6300); Jaguar S(I) (1600; 4775).	F-16A/B (1600; 4500); Mirage V (2100; 4500)
Tactical missiles (range [km]; payload [kg])	Prithvi I (150; 1,000); Agni I (700+; 1,000); Dhanush (350; 500); Sagarika/K-15 (300-700; 500-600)	Ghaznavi/Hatf III (400; 500); Shaheen I/Hatf IV (450+; 1,000); Babur/Hatf VII (320+; n/a); Ra'ad/Hatf VIII (320+; n/a)
Strategic medium-range missiles (range [km]; payload [kg])	Agni II (2,000+; 1,000); Agni III (3,000; 1,500)	Ghauri/Hatf V (1,200+; 1,000); Shaheen II/Hatf VI (2,000+; 1,000)

Table based on the following sources: Robert S. Norris and Hans M. Kristensen, "Pakistani Nuclear Forces, 2009," *Bulletin of the Atomic Scientists* 65 (Sept./Oct. 2009): P. 84; Robert S. Norris and Hans M. Kristensen, "Indian Nuclear Forces, 2010," *Bulletin of the Atomic Scientists* 66, no. 5 (2010): P. 79; Robert S. Norris and Hans M. Kristensen, "Global Nuclear Weapons Inventories, 1945-2010," *Bulletin of the Atomic Scientists* 66 (Jul./Aug. 2010): P. 82.

Doctrinal Discrepancies in South Asia

As Zafar Iqbal Cheema writes in his study, *Indian Nuclear Deterrence*, peace and security, and the very survival of the South Asian subcontinent, depend on the robustness of nuclear deterrence and strategic stability.¹⁰ There are some offshoots within the larger framework of strategic stability, namely, deterrence stability and crisis stability. Cheema argues that a number of trends will seriously impinge on strategic stability in relations between India and Pakistan, in particular the state of conventional military and nuclear weapons capabilities, the arms race in both

¹⁰ Cheema, *Indian Nuclear Deterrence*, P. 436.

arenas, and the impact of asymmetry in conventional military capabilities on deterrence and strategic stability. The management and resolution of India-Pakistan disputes over issues of vital interest to both countries, the state of political and diplomatic relations, adherence to a security regime, and confidence-building measures are equally important.

In comparing key elements of strategic stability in today's South Asia with the same elements of strategic stability in relations between the Soviet Union and the United States during the Cold War era, it is possible to find a number of differences as well as similarities. These relate to the acceptance of the idea of mutual assured destruction (which made the possibility of a nuclear war low) and an implicit acceptance of the idea of strategic parity – despite the different mix of nuclear forces. Regarding this element, it is necessary to mention the concepts of credible minimum deterrence and no first use.

Both India and Pakistan have declared that they would adhere to credible minimum deterrence. Its main goal is to prevent the use of WMDs by the other side (in India's case) and to prevent a critical war in which both WMDs and conventional weapons are used (in Pakistan's case). It is obvious that in each case, the meaning of the posture is different and at the same time linked to the other country's. There are some unclear issues, however. In the case of India, minimum nuclear deterrence requires:

1. Sufficient survivable and operationally combat ready nuclear forces;
2. A robust command-and-control system;
3. Effective intelligence and early warning capabilities;
4. Comprehensive planning and training for operations in line with the strategy; and
5. The willingness to use nuclear weapons.

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."¹¹ 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 creating 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.¹² 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 the Indian nuclear systems. For example, the U.S.-India nuclear deal of 2008, from Pakistani experts' point of view, has allowed India to improve its nuclear arsenal, and U.S.-Indian cooperation has helped India to develop its BMD technologies.¹³

In response, 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

11 A. Rajain, *Nuclear Deterrence in Southern Asia: China, India and Pakistan* (New Delhi: SAGE Publications, 2005), P. 229.

12 Salik, *The Genesis of South Asian Nuclear Deterrence*, P. 230.

13 See reports of the South Asian Strategic Stability Institute, London: U. Choudhury, *The Indo-USA Nuclear Deal and Its Impact on India's Ballistic Missile Programme*, Research Report 17, June 2008; N. Mirza and M. Sadiq, *Indo-US 123 Agreement: Impacts on Deterrence Stability in South Asia*, Research Report 7, Jan. 2008.

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.

Both nuclear optimists and pessimists agree, however, that nuclear weapons proliferation in South Asia will not lead to the deliberate outbreak of large-scale war. Neither Indian nor Pakistani leaders wish to initiate a conflict that could end in a nuclear exchange with disastrous consequences.¹⁴

Still, a catastrophic conflict could occur even though neither the Indians nor the Pakistanis intend to start a nuclear war. The pessimists believe that a nuclear exchange is likely to occur, especially in view of the still underdeveloped nuclear control systems and missile attack warning systems. The optimists argue that this disaster in a nuclear South Asia remains unlikely, owing to the practice of lowered combat readiness during peacetime, that is, the “operationally dormant” state of nuclear arsenals, under which it would take India and Pakistan from a couple of hours to several weeks to restore their retaliatory capabilities.¹⁵

With respect to another element of the Cold War’s strategic stability – the limits placed on offensive nuclear weapons, which help prevent an unconstrained arms race – there is no agreement between India and Pakistan in this area. Neither India nor Pakistan is interested in control of its own nuclear arsenals by the other country. The similar position of the two states was explained to the author by Indian and Pakistani experts based on two similar reasons:

1. The capability of one of the two South Asian countries to build nuclear weapons is more or less clear to the other country.
2. India and Pakistan, which adhere to minimal nuclear deterrence, are not interested in nuclear competition or an arms race.

Besides, in nuclear arms control there is a deep divergence of interests between India and Pakistan. India is more interested in controlling China’s nuclear arsenals than it is in controlling Pakistan’s. China shows no interest in exchanging data with India or in an agreement with India on limiting nuclear weapons. Pakistan would like to have an agreement with India on nuclear arms control, but India is not interested in an agreement with Pakistan.

The situation is slightly better in the area of confidence-building measures and communications that could be activated during crises to prevent an escalation of conflict. India and Pakistan have a number of agreements, namely:

1. An agreement on the prohibition of attack against nuclear installations and facilities, which requires an exchange of lists of each state’s respective nuclear installations on January 1 every year (The India-Pakistan Non-Attack Agreement of 1998);
2. An agreement on advance notification of ballistic missile tests (2005); and
3. An agreement on reducing the risk from accidents relating to nuclear weapons (2007).

It is very important to underline that none of these agreements has any verification mechanism. A window of opportunity to develop confidence-building measures existed at the time of the India-Pakistan Composite Dialogue in 2004 to 2008. The idea of this dialogue was initiated in 1998 by Pakistan as part of a com-

14 Ganguly and Kapur, *India, Pakistan, and the Bomb*, P. 85.

15 G. Chufirin, V. Belokrenitsky, V. Moskalenko, and T. Shaumyan, “South Asia,” in *Nuclear Weapons After the Cold War*, eds. A. Arbatov and V. Dvorkin (Moscow: Carnegie Moscow Center, 2008), P. 336.

prehensive proposal for a “strategic restraint regime.” Although in general, this proposal was not supported by the Indian side, some of its ideas were reflected in the Lahore Declaration of 1999, for example: “[Both Governments] shall take immediate steps for reducing the risks 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 conflicts.”¹⁶

The 2005–2007 bilateral agreements on nuclear confidence-building measures are the result of the composite dialogue. However, after the Mumbai terrorist attack, this dialogue was frozen by India, which accused Pakistan of supporting terrorists working against India.

External Factors Weakening Strategic Stability in South Asia

By external factors I mean all the factors beyond the nuclear juxtaposition of India and Pakistan. External factors that weaken the strategic stability in the region include the following:

1. The high risks of non-nuclear conflicts in South Asia;
2. Cross-border terrorism;
3. The conventional imbalance in South Asia; and
4. The “horizontal” proliferation of military technologies (including but not limited to the technologies of nuclear weapons, missiles, and ballistic missile defenses).

The problem of horizontal proliferation is complex, involving the “Khan network” and Pakistan’s nuclear contacts with China, the Democratic People’s Republic of Korea (DPRK), and Iran. In the past, Pakistan received assistance from North Korea in developing its nuclear energy industry and missile technologies. Cooperation with the DPRK may have contributed both to the development of missile technology in Pakistan and to the development of North Korea’s military nuclear program. According to data from the United States, Pakistan began transferring nuclear weapons technologies to North Korea in 1997. In exchange, Pakistan acquired the technology it needed to develop intermediate range missiles.¹⁷

However, Islamabad firmly denies any connection between missile development in Pakistan and North Korea’s military nuclear program.¹⁸ It claims that the “Khan network” is to be blamed for the transfer of nuclear technologies to North Korea.

Despite the elimination of this network in 2003-2004, some of its elements may still be functioning.¹⁹ After all, this network had ties with other nuclear black markets that remained in place. (Such markets usually form around nations that would like to develop nuclear programs but lack the resources to do so, or those that lack the opportunity to import openly on the international market.) Thus, at different times such markets have arisen around India, Iraq, Iran, Libya, and North Korea. Apart from this, Argentina, Brazil, Egypt, Israel, Syria, and the

16 “The Lahore Declaration,” in D. Kux, *India-Pakistan Negotiations: Is Past Still Prologue?* (Karachi: Oxford University Press, 2007), pp. 81-82.

17 S. M. Hersh, “The Cold Test: What the Administration Knew about Pakistan and the North Korean Nuclear Program,” *New Yorker*, Jan. 27, 2003.

18 See P. Musharraf’s statement: “It [North Korea’s missile technology deal with Pakistan. – P. T.] did not – [I] repeat, not – involve any deal whatsoever for reverse transfer of nuclear technology, as some uninformed sources have speculated.” (P. Musharraf, *In the Line of Fire: A Memoir* [London: Simon & Schuster, 2006], p. 286).

19 “AQ Khan Network Still Alive: US Think Tank,” *Times of India*, Sept. 8, 2006.

Republic of South Africa, as well as several companies in Australia, Germany, Malaysia, the United States, Switzerland, and other countries, have trafficked nuclear materials and technologies.²⁰ Clearly, the main problem of horizontal proliferation is not only A. Q. Khan²¹ but also the lack of effective instruments of international control over the transfer, storage, and transport of nuclear materials and technologies.

Other horizontal proliferation threats relating to Pakistan include the possibility that extremists might hijack either nuclear weapons or weapons-grade nuclear materials, or that Pakistani nuclear scientists might transfer sensitive information to other countries or to terrorists. Finally, there is the risk of political destabilization in Pakistan and the transfer of power to radicals.²²

The most likely scenario would involve the deliberate transfer of insignificant amounts of materials or some nuclear components or technologies. The chance that Pakistan's nuclear weapons might fall into the hands of terrorists is considered technically unlikely because both India and Pakistan follow the practice of storing their nuclear warheads separately from the delivery vehicles.

SECURITY ENHANCING EFFORTS: FROM WITHIN AND OUTSIDE THE REGION

Strategic security in South Asia can be described as rather unstable. There is a high risk of conflict between India and Pakistan caused by cross-border terrorism, accidents with nuclear weapons in both states, the Kashmir dispute, the problem of sharing water from the Indus, and so on. It is obvious that major efforts to enhance regional security must be made by India and Pakistan. However, it can be argued that third countries, international organizations, and nonproliferation regimes can play a positive role as well.

Unilateral and Bilateral Measures

India and Pakistan have many options for furthering security in South Asia. The following recommendations for India and Pakistan are based on a number of interviews and papers.²³

1. Pursue greater transparency and symmetry in nuclear doctrines.
2. Negotiate confidence-building measures with regard to nuclear and conventional forces (and also separately on missiles).
3. Exercise mutual restraint in the development of nuclear weapons, and create verification mechanisms.
4. Include the issues of Kashmir, nuclear security, and counterterrorism in the agenda of the Composite Dialogue.

20 International Institute for Strategic Studies, *Nuclear Black Markets: Pakistan, A. Q. Khan and the Rise of Proliferation Networks* (London: ISIS, 2007), PP. 43-64.

21 Although he is often cited as being the main problem. For reference, see the statements of P. Musharraf and George Tenet, the former director of the CIA: "It was becoming clear that AQ was not 'part of the problem' but 'the problem' itself." (Musharraf, *In the Line of Fire*, P. 288); Khan is "at least as dangerous as Osama bin Laden." ("AQ Khan Network Still Alive," *Times of India*, Sept. 8, 2006).

22 Z. Ali, "Pakistan's Nuclear Assets and Threats of Terrorism: How Grave Is the Danger?" (Washington, DC: Henry L. Stimson Center, 2007), PP. 8-9.

23 See, for example: "Nuclear Risk Reduction Redux in South Asia," Jul. 6, 2010, available at www.stimson.org/essays/nuclear-risk-reduction-redux-in-south-asia/ (accessed Apr. 31, 2011).

External and Multilateral Measures

External factors²⁴ that strengthen strategic stability in the region include the following:

1. Transparency and symmetry in the military development of India and Pakistan;
2. The existence of confidence-building measures with regard to nuclear and conventional forces, with verification mechanisms; and
3. The engagement of India and Pakistan in the nonproliferation regime through positive incentives and pressure brought by international organizations and other countries.

The Case of the U.S.-India Nuclear Deal

The ambiguous example of the engagement of India in the nonproliferation regime is the U.S.-India “nuclear deal,” or the 123 Agreement, which was signed by U.S. Secretary of State Condoleezza Rice and Indian Minister of External Affairs Pranab Mukherjee on October 10, 2008.²⁵ The nuclear deal was designed to form the basis for joint U.S.-Indian cooperation in the following fields: joint advanced nuclear power research; the security of civil nuclear facilities, nuclear reactors, and the nuclear fuel cycle; and the establishment of nuclear fuel stocks. The main condition of cooperation was the separation of India’s military nuclear facilities from its civilian ones (with the latter to be put under International Atomic Energy Agency [IAEA] safeguards).

During negotiations held between 2005 and 2008, U.S. representatives sought to obtain India’s signature on the CTBT and its agreement to halt the production of fissile material for military purposes, but they failed.²⁶ In the words of Manish Tiwari, the official spokesman for the All India Congress Committee, “I think that the independence of India’s foreign policy has not been compromised. In fact on the contrary, it has been enhanced. No NPT, no CTBT, no FMCT, no moratorium on the side material production. You have got the world to give access on your terms. God, lets have a heart and lets give the man his due.”²⁷

The 123 Agreement, the Henry Hyde Act, and the agreement between India and the IAEA laid the legal basis for the end of India’s international isolation and for the resumption of nuclear technologies and materials imports. During the three years of negotiating the nuclear deal, discussions in India addressed both the hope of breaking out of its prolonged trade blockade and the fear that it might lose the independence it had gained thanks to its position outside the nuclear nonproliferation regime.

Other countries, primarily the United States, also debated the possible consequences of the end of India’s isolation in exchange for certain commitments regarding the peaceful use of nuclear energy. In particular, concern was expressed that the nuclear deal might signal to third countries that they could acquire nuclear weapons

²⁴ About the external factors see the paragraph on External Factors Weakening Strategic Stability in South Asia.

²⁵ U.S. House Committee on Foreign Affairs, *Agreement for Cooperation between the Government of the United States of America and the Government of India Concerning Peaceful Uses of Nuclear Energy*, available at <http://www.hcfa.house.gov/110/press091108h.pdf>.

²⁶ L. Weiss, “U.S.-India Nuclear Agreement Is Reckless Foreign Policy,” *Stanford Report*, Oct. 16, 2008.

²⁷ “Debate: Love or Hate Him, India Stuck on Bush,” *CNN-IBN*, Sep. 30, 2008, available at <http://ibnlive.in.com/news/debate-love-or-hate-him-india-stuck-on-bush/74672-2-7.html>.

and, by establishing special relations with the world's great powers, still count on exclusive treatment.²⁸

The election of Barack Obama in 2008 raised concerns in India about the future of U.S.-Indian relations, based on the Democratic candidate's campaign promise to make nonproliferation the focal point of U.S. foreign policy. His speeches emphasized the need for deep cuts in the numbers of nuclear weapons in order to eventually eliminate them altogether.²⁹ During M. Singh's September 2008 visit to the United States, Barack Obama sent him a letter stating, "I will work... to secure ratification of the international treaty banning nuclear weapons testing at the earliest practical day, and then launch a major diplomatic initiative to ensure its entry into force. I will also pursue negotiations on a verifiable, multilateral treaty to end production of fissile material for nuclear weapons."³⁰

Only in March 2009 did Washington assure Delhi that it intended to keep its commitments linked to the nuclear deal. On March 9-11, India's Deputy Minister of External Affairs, Shivshankar Menon, paid an official visit to Washington, where he discussed the peaceful use of nuclear energy with Secretary of State Hillary Clinton and other officials. After the meetings Menon declared, "I was reassured by the determination to go through [with] it [the nuclear deal]." He added that U.S.-Indian relations had reached "a new level."³¹

Before Secretary of State Clinton's visit to India on July 17-21, 2009, India had another reason for concern. The 2009 G8 Summit in L'Aquila, Italy, adopted the L'Aquila Statement on Non-Proliferation, in which the G8 members called on the Nuclear Suppliers Group (NSG) to develop a document by the end of 2009 that would prohibit the transfer of nuclear enrichment technologies to countries that had not signed the NPT.³² For the Indian side, represented at the summit by Prime Minister Manmohan Singh, this initiative came as an unpleasant surprise, even though India no longer required enrichment technologies. Furthermore, in 2008, with U.S. help, India reached an agreement with the NSG, which declared that "Participating Governments may transfer nuclear-related dual-use equipment, materials, software, and related technology to India for peaceful purposes and for use in IAEA safeguarded nuclear facilities."³³ The L'Aquila Statement demonstrated to India that the question of India joining the NPT remained important to other countries (particularly the United States and Russia) that were interested in cooperation with India.

The Obama administration found itself with the same results as the Bush administration had: failure to effectively link cooperation on the peaceful use of nuclear energy with the engagement of India in the nonproliferation regime. That is why Washington had to separate nuclear cooperation with India from the dialogue on nonproliferation.

28 B. Glosserman and B. Gill, "Bush's Nuclear Deal with India: Bigger Consequences to Consider," *Japan Times*, Oct. 29, 2008.

29 A. Arbatov and R. Gottemoeller, "New Presidents, New Agreements? Advancing U.S.-Russian Strategic Arms Control," *Arms Control Today* 38, no. 6 (Jul.-Aug. 2008): P. 7.

30 Barack Obama, quoted in I. Gilani, "US President-Elect's 'No Lift' Worries India: Obama's Phone Calls to Allies Including Zardari Even More Disturbing for Delhi," *Daily Times*, Nov. 9, 2008.

31 Shivshankar Menon, quoted in "N-deal on Track; US, India Determined to Go Forward," *Hindustan Times*, March 12, 2009.

32 "L'Aquila Statement on Non-Proliferation" (G8 Summit, L'Aquila, Italy, 2009), PP. 3-4, available at http://www.g8italia2009.it/static/G8_Allegato/2_LAquila_Statent_on_Non_proliferation.pdf.

33 Nuclear Suppliers Group, quoted in "Statement on Civil Nuclear Cooperation with India," *Frontline* 25, no. 20 (Sept. 27-Oct. 10, 2008).

The only compromise that the Indian side was ready to accept was the agreement with the IAEA to separate its nuclear facilities into military and civilian parts. However, under this agreement and its Additional Protocol, India will place the civilian facilities under IAEA safeguards only by 2014 (currently, inspectors are allowed to access only six facilities). Moreover, in contrast to IAEA standard protocols, the Indian version does not imply any IAEA control over the import of nuclear materials or technologies, short-notice on-site inspections, or the collection of samples at nuclear facilities or surrounding sites – in other words, all kinds of IAEA measures that are intended to detect undeclared nuclear activities.³⁴

The Role of External Powers

First and foremost, the Indian and Pakistani cases are challenges to the nonproliferation regime. Usually the nonproliferation regime is not a priority for the regional organizations of which India and Pakistan are members or observers (SAARC, SCO, ASEAN, ECO, and OIC). These organizations can play a positive role in enhancing strategic security in South Asia, but their potential for strengthening nuclear security is less than that of the nonproliferation organizations and certain countries.

The nuclear weapons states (chiefly the United States, Russia, and China) should demonstrate to other states their strong commitment to nuclear nonproliferation and disarmament not only through the new START Treaty but also through START follow-up, ratification of the CTBT, and finalizing the FMCT.

Against this background, India and Pakistan should be engaged in the nonproliferation regimes on a nondiscriminatory basis (IAEA, NSG, MTCR, etc.). This engagement should not set a bad example to the nuclear threshold states. All advantages of nuclear cooperation must be made conditional on acceptance of NPT commitments and IAEA safeguards by recipient states.

³⁴ "IAEA Okays More Nuke Inspections for India," *RTT News: Global Financial Newswire*, Mar. 4, 2009.

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