

Burying the Hatchet: The Case for a ‘Normal’ Nuclear South Asia

The global nonproliferation regime faces a major challenge in South Asia. India and Pakistan, two nuclear-armed states locked in an intense and enduring rivalry, are investing heavily in their respective nuclear arsenals and deploying new delivery systems at an alarming rate.

At the same time, both countries are seeking entry into the club of responsible stewards of nuclear capability. Yet, the international community has been unwilling to find a pathway to confer *de jure* nuclear-weapon-state status on Islamabad and New Delhi, leaving the door to nuclear normalization shut.

The arms race gripping India and Pakistan is part and parcel of what some scholars describe as the second nuclear age.¹ This new age is significantly different from the Cold War era referred to as the first nuclear age. It is characterized by geographically linked nuclear-armed states that are involved in

varying levels of ideological rivalries and unresolved disputes, which have been exploited by violent religious extremists.² In its current shape, the global nonproliferation regime is ill equipped to tackle the complexities of this second age wherein three regions—the Middle East, South Asia, and East Asia—are subject to potential instability and home to nuclear-armed states that are in defiance of the nonproliferation regime. This article focuses on South Asia, where the potential for a sudden Indian-Pakistani military crisis is profound, conventional and nuclear force postures are evolving rapidly, and a sense of discrimination

persists regarding the nuclear world order. In part, these factors are exacerbating the Indian-Pakistani rivalry and driving further noncooperation with the global nonproliferation regime.

For 40 years, Islamabad and New Delhi have refused to join the nuclear Nonproliferation Treaty (NPT) and continued to build their arsenals while the international community has exhausted its diplomatic efforts and tools, including sanctions, to reverse, contain, or dampen the Indian-Pakistani arms race. This continued friction has had negative consequences for international security.

It is high time for the international community to bury the hatchet by finding a pathway to bring South Asia into the global nuclear order. Doing so would temper the Indian-Pakistani arms race by creating powerful incentives for Islamabad and New Delhi to conform to the behavioral norms and legal obligations expected of nuclear powers.

This article begins by examining the global nonproliferation regime from a South Asian perspective and explains why bringing India and Pakistan into the nuclear mainstream is important. The article then evaluates three different pathways for Indian and Pakistani

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An Agni-5 missile is displayed on January 23, 2013, during a rehearsal for the Indian Republic Day parade in New Delhi three days later.

entry into the global nonproliferation regime: (1) developing political and technical criteria for membership into the regime; (2) engaging in bilateral negotiations with each of the two states on separate, independent tracks; and (3) partaking in multilateral negotiations and forums to reach an arrangement on strategic restraint. The end goal for these pathways, which are not mutually exclusive, is to allow the two countries to enter into export control regimes such as the Nuclear Suppliers Group (NSG) and the Missile Technology Control Regime (MTCR). Membership in global export control regimes will encourage Islamabad and New Delhi to negotiate bilateral steps toward nuclear stability, safety, and security as promised in the 1999 Lahore Declaration and avail themselves of opportunities for arms control agreements in a region in dire need of nuclear stability.³

A Regional Perspective

The NPT, which entered into force in 1970, offered a grand bargain to countries willing to eschew nuclear weapons acquisition by promising them access to

verifiably peaceful nuclear technology and a “good faith” pledge from the nuclear-weapon states (China, France, the Soviet Union, the United Kingdom, and the United States) to reduce if not eliminate their nuclear weapons stockpiles.⁴ India, Pakistan, and Israel—now de facto nuclear-armed states—did not accept the treaty and are generally described as outliers from an NPT standpoint. India, for its part, decried the treaty as a form of nuclear apartheid wherein the currency of power was the preserve of the five privileged countries that wielded their veto power in the UN Security Council to jealously guard their nuclear monopoly. Proponents of this view painted the nuclear issue in populist terms—a dispute between nuclear haves and have-nots. Moreover, India aspired to be treated as a global power, as it still does. It desires to be in the elite club of haves on par with China and loathes being lumped with Pakistan as a nuclear outlier.

Meanwhile, India and Pakistan saw export control regimes—the NSG, the MTCR, the Australia Group on chemical and biological weapons, and the Wassenaar Arrangement on conventional

weapons and dual-use goods and technologies—as Western cartels aimed at denying technology to the Communist bloc and developing world alike, which deepened their perception of the NPT as a form of nuclear apartheid.

Islamabad took particular umbrage at the NSG. Formed in the mid-1970s in response to India’s 1974 test of a nuclear device, the NSG had an immediate impact on Pakistan’s nascent nuclear program, which became a test case for the control regime’s effectiveness and heightened Islamabad’s sense of nuclear discrimination. In addition, the establishment of the NSG prompted a cat-and-mouse game between Pakistani procurement efforts and NSG efforts to block them, a dynamic that contributed to the genesis of the Abdul Qadeer Khan proliferation network.

India and Pakistan resisted the nonproliferation regime for economic reasons and out of principle, but national security imperatives also played a deterministic role. India’s security rationale for developing a nuclear weapons program stemmed from perceived threats from China, and these

perceptions continue to drive India's arms buildup to this day. Yet, India's moves to modernize its nuclear forces with new delivery systems and ballistic missile defenses to balance against China raise red flags in Pakistan. In this context, the logic behind Islamabad's decision

only five—nuclear-weapon states simply confines India and Pakistan to a perpetual “outlaw” status that opens the door to unchecked arsenal buildups. The time has come for the regime to break with the status quo in favor of a new approach characterized by flexibility and

Arguably, the nuclear deal with India confers legitimacy on India's nuclear program, but it is based on exception. India is not legally obligated to undertake the steps NPT nuclear-weapon states are required to take, such as disarmament, but the nuclear deal is nevertheless an

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to develop nuclear weapons is clear. Its program is primarily intended to offset its disparity with India in conventional forces and to prevent nuclear coercion. Islamabad's current deterrence posture comprises compact-design warheads, short-range battlefield weapons, and medium-range ballistic and cruise missiles. Additionally, both countries have announced plans to introduce sea-based nuclear weapons sometime soon.⁵

In sum, India seeks to match China at the global level, and Pakistan seeks to match India at the regional level. This has transformed security dynamics in Asia into a security “trilemma,” in which arrangements to apply strategic restraint are becoming problematic.⁶ In any event, the intertwined arms race in South Asia warrants a more inclusive nonproliferation regime that encourages India and Pakistan to conform to prevailing nuclear norms rather than challenge them, as both states did in the last century.

Confronting a bilateral relationship characterized by a heavily militarized border, major territorial disputes, cross-border terrorist activity, and rapid advancements in nuclear arsenals and delivery systems, the international community should make every effort to discourage arms racing. Nuclear normalization is one path that could temper the security competition between India and Pakistan. Dogmatically rigid adherence to the antiquated nonproliferation regime of five—and

accommodation for responsible nuclear outlier states.

Criteria-Based Model

Several experts have argued for a criteria-based model for legitimizing nuclear outlier states and bringing them into the nonproliferation regime.⁷ The premise of a criteria-based approach is that it is inherently nondiscriminatory and thereby allows all non-NPT states a way to undertake the obligations that other members of the treaty have assumed. Such an approach would proscribe making special exceptions for commercial interests and engaging in the politics of alliances and balancing—criticisms that Pakistan frequently levies against the U.S.-Indian nuclear deal.

Another argument for a criteria-based model derives from the combined threat of global terrorism and fear of nuclear accidents such as the March 2011 meltdown at the Fukushima Daiichi nuclear power plant. These concerns have diminished the promise of a nuclear energy renaissance and placed greater emphasis on nuclear safety and security. Bringing nuclear outlier states into the nonproliferation regime would allow them to undertake more-robust safety and security measures, pursue closer relationships with nuclear regulatory authorities, and receive better technical assistance from the West.

Attainment of these objectives requires normalization of nuclear relations with India and Pakistan as a first step.

incentive for India to conform to nuclear norms. Pakistan, in contrast, has neither nuclear legitimacy nor any nuclear deal that could entice it to follow these norms. Nuclear normalization would simply mean that each country would be treated as “normal nuclear country” if it met certain criteria.⁸ The two countries could be mainstreamed into the nuclear world order by making them members of the NSG and other export control regimes.⁹

At the time the U.S. nuclear deal with India was contemplated, there existed no established criteria for nuclear normalization. In making its argument for the lifting of international sanctions, India cited its democratic governance; its good proliferation track record, at least compared to Pakistan, whose reputation was tarnished by the A.Q. Khan scandal; and the promise of nuclear purchases from the international market. For New Delhi, a nuclear deal also was seen as a tool for bolstering India's case for eventual membership in the NSG.

Pakistan watched the negotiation of the U.S.-Indian deal from the sidelines; it was unable to influence the outcome that led to India's NSG exemption. Under U.S. pressure, Islamabad lifted its objections at the International Atomic Energy Agency (IAEA) Board of Governors meetings to India's nuclear cooperation agreement with the United States as the agreement went through the board's approval process in 2008.¹⁰ Furthermore, as the years went by and especially after the advent of the Obama administration

in 2009, Islamabad realized that, despite private assurances from the Bush administration to the contrary, the prospects for a U.S.-Pakistani nuclear deal were dim. Islamabad then broke its silence, began protesting the discriminatory nature of the U.S.-Indian deal, and vocally expressed its view that the exceptional nuclear deal with India would have a deleterious impact on Pakistani national security. Moreover, Islamabad blocked the commencement of negotiations on a fissile material cutoff treaty (FMCT), arguing that the treaty would freeze Pakistan's nuclear stockpiles at a disadvantage relative to India. The next major development came in 2011, when Pakistan tested the Nasr, a nuclear-capable ballistic missile with a range of 60 kilometers. U.S.-Pakistani nuclear relations dipped to an all-time low.¹¹

Today, Islamabad seeks a criteria-based approach in hopes of legitimizing its nuclear program. Because the prospects for a formal U.S.-Pakistani civilian nuclear deal remain uncertain, Islamabad seeks membership in the NSG primarily to gain legitimacy as a responsible nuclear power and

wipe out the legacy of the A.Q. Khan network. Also, Islamabad would prefer to engage in nuclear commerce under the NSG framework rather than outside it. Experts have argued, however, that Islamabad lacks the money to engage in nuclear commerce and that vendors from other countries would be reluctant to invest in Pakistan given its internal security problems. Despite Pakistan's claim of operating a robust nuclear security system, Western states remain skeptical, surmising that mounting extremism and a deteriorating domestic security environment increase the risk of sabotage.¹² Yet, this has not deterred Beijing. China has provided Pakistan with civilian nuclear assistance although Pakistan, like India, is not a party to the NPT and therefore, under NSG export guidelines, would not normally be eligible to receive such assistance. China has argued that such assistance is permitted because the U.S.-Indian nuclear deal set a precedent and because Chinese-Pakistani nuclear cooperation predated China's membership in the NSG and therefore is "grandfathered."¹³

In light of these considerations,

various scholars have suggested several admission criteria to the NSG and other export control groups. The criteria fall into two categories: eligibility criteria and political acceptability for the members of the NSG and other control groups. The eligibility criteria include meeting the various bureaucratic requirements for membership into export control groups as mentioned above. For non-NPT states such as India and Pakistan, entry into the NSG, for example, would require undertaking several steps in addition to those already known for eligibility into export control regimes.¹⁴ Pierre Goldschmidt, a former head of the Department of Safeguards at the IAEA, has suggested 14 steps for non-NPT members to become full members of the NSG. In brief, these criteria would require non-NPT members to pledge those undertakings that the five NPT nuclear-weapon states have taken: placing all nonmilitary nuclear facilities under full-scope safeguards, agreeing to ratify an additional protocol to their safeguards agreements, and adhering to all the NSG decisions.¹⁵

India and Pakistan could meet most



Pakistani military personnel stand beside Nasr missiles during the Pakistan Day military parade in Islamabad on March 23, 2015.



Indian External Affairs Minister Pranab Mukherjee (left) and U.S. Secretary of State Condoleezza Rice sign the U.S.-Indian nuclear agreement at the State Department on October 10, 2008, after the U.S. Congress approved the pact earlier in the month.

of the eligibility requirements, but may find it difficult to agree to all of the expected concessions due to the salience of nuclear weapons in their respective national security policies and the domestic political unpalatability of compromising too much of what each state might think is its “minimum credible deterrence” requirements. For example, the two states may still resist signing the Comprehensive Test Ban Treaty (CTBT) or ceasing production of fissile material for weapons. Furthermore, meeting the eligibility requirements alone is insufficient to attain membership in the club. Accession will require political negotiations with major powers and states that are members of the export control regimes, as each member state may have individual concerns that may preclude consensus even if India and Pakistan fulfill all the eligibility requirements. To gain international support for their formal entry into the NSG, the two countries would certainly be required to make concessions and accept restraints on their nuclear weapons programs.

India will likely encounter fewer political hurdles because it has already passed the test once. Furthermore, India has defense and economic ties with major NSG member countries. Pakistan, in contrast, has a steep hill to climb in order to garner international support. Additionally, given Pakistan’s proliferation record and its internal instability, the West would likely seek greater concessions and restraints than it required of India, which Islamabad may find difficult to accept. Although Pakistan demands equitable treatment, most states see India in a different league as a major power and Pakistan as a regional albeit strategically important country.

On balance, India has the edge over Pakistan with respect to criteria-based NSG membership. This would be nightmarish for Pakistan because Islamabad calculates and New Delhi realizes that once India becomes a member of the NSG, the door for Pakistani entry might well be permanently shut because India could block consensus on admitting Pakistan. Sideline Pakistan from the NSG in such

a way would serve only to undermine regional stability.¹⁶ It would deepen Islamabad’s sense of indignity and strengthen the position of domestic stakeholders seeking to diversify and expand Pakistan’s nuclear arsenal. Accordingly, as much as a criteria-based approach makes sense from the standpoint of fairness and equality, developing political consensus for normalizing nuclear relations with India and Pakistan would require bilateral or multilateral negotiations.

Separate, Bilateral Tracks

Another model for normalization is for the United States to engage in bilateral negotiations with Islamabad and New Delhi on separate tracks. The goal would be to extract commitments on arms control and strategic restraint from both capitals. In return, the United States would pledge full support for Indian and Pakistani membership in the NSG and other export control regimes. Although this would be a painful and uncertain process, the United States has demonstrated, in the case of India, that



President Barack Obama meets with Pakistani Prime Minister Nawaz Sharif at the White House on October 22, 2015.

a bilateral nuclear deal can be struck with an outlier state through sustained diplomacy, patience, and political will.

Admittedly, the U.S. experience of negotiating with Islamabad and New Delhi on separate tracks to achieve the same outcome has not proven successful in the past. Following the 1998 Indian and Pakistani nuclear tests, President Bill Clinton assigned Deputy Secretary of State Strobe Talbott to lead separate negotiations with the two countries, which then were under sanctions. The goal was to get the sanctions removed and bring relations back to normalcy. Predictably, the negotiations stalled, as neither of the two South Asian countries knew what the other had conceded or negotiated.

Despite the false start during the Clinton years, prospects for successful bilateral negotiations today are improved, as the geopolitical environment has evolved over the past 15-plus years. Washington's relations with New Delhi have warmed steadily, and both capitals speak of a budding

U.S.-Indian "strategic partnership."

Although the U.S.-Pakistani relationship has been turbulent in recent years, especially since 2011, it currently is on a positive trajectory, albeit with a degree of underlying suspicion and distrust.¹⁷ Since 2012, the United States has been engaged in several levels of strategic dialogue with Islamabad, including discussions on charting a path to nuclear normalization. In the fall of 2015, various U.S. media outlets reported that the Obama administration was contemplating a nuclear deal with Pakistan.¹⁸ The Indian and Pakistani prime ministers also were scheduled for official visits to the United States in this time frame. Islamabad and New Delhi reacted strongly to these press reports. The ensuing uproar over a supposed U.S.-Pakistani deal forced the Obama administration to clarify that no such agreement was on the table for Islamabad.

It also is likely that negative reactions from both capitals were influenced by the publication of two think tank reports in 2014-2015 proposing road

maps to Pakistani normalization.¹⁹ New Delhi's reaction was predictable. A nuclear deal for Pakistan would pull Islamabad out of the hole in which it found itself after the A.Q. Khan episode. Such a renewal of relations would run counter to India's policy of diplomatically isolating Pakistan.

Islamabad's reaction to the reports was surprisingly frosty. For years, Pakistan has sought equal treatment and a nuclear deal analogous to India's. Yet, when these reports emerged, public reaction in Islamabad was not focused on the "normalization" content but on the perception that the government was being forced to concede too much on its nuclear program. Pakistan's skeptical reaction, however, should not come as a total surprise. U.S.-Pakistani nuclear relations soured in the mid-1970s over Pakistan's quest for nuclear weapons and have never recovered. Although bilateral ties have ebbed and flowed since then, nuclear issues have remained a persistent irritant in the relationship.²⁰

There were several variations of this

negative reaction in Pakistan. One school of thought was based on the belief that the United States is bent on Pakistani disarmament, by force if necessary, and is applying pressure to that end. This theory has existed in Pakistan for some time, but gained traction following the 2011 U.S. commando raid in Abbottabad that killed Osama bin Laden. Pakistani media often portray this theory as if it were official U.S. policy.

nuclear matters and is deeply rooted in Pakistani society.

One example of this attitude came during Pakistani Prime Minister Nawaz Sharif's visit to Washington in October 2015. To dispel rumors of any nuclear concessions, Pakistani Foreign Secretary Aizaz Chaudhry issued a press statement justifying the rationale of Pakistani tactical nuclear weapons. This was an effort to preempt any rumor of or

command-and-control, deterrence stability, and escalation control challenges posed by these weapons.²²

Multilateral Negotiations

The third approach toward normalization is to engage in multilateral negotiations with India and Pakistan. Multiparty negotiations have seen recent success in the case of the Iran nuclear deal, but in the Indian-Pakistani case, the focus of

Perhaps the fundamental stumbling block for any U.S.-Pakistani nuclear negotiation is that the two countries have different interpretations of what “minimum” and “credible” mean.

The second, less widely held shade of opinion was that the United States had adopted an approach reminiscent of the “cap and roll back” policy of the early 1990s. At that time, Islamabad was under nuclear sanctions under U.S. nonproliferation laws. For some years, the United States sought to cap Pakistan's production of highly enriched uranium and then roll back the country's capacity to produce more. In other words, sanctions were being employed as leverage to persuade Pakistan to compromise on its nuclear program. Islamabad, however, was unwilling to comply after having paid the price of nuclear defiance, which included economic sanctions, denial of a modern military capability, and diplomatic opprobrium. The U.S. policy turned out to be counterproductive. Rather than reversing its nuclear program, Pakistan stepped up production of fissile material and diversified its delivery vehicles by acquiring missiles and missile technology. Although the U.S. policy ultimately failed to dissuade Islamabad, the psychological impact of that period continues to linger in some quarters in Pakistan.

The third shade of reaction was that the United States was pressuring Islamabad to weaken its deterrence posture against India. This school of thought champions Pakistani defiance against any concessions on

speculation about Pakistani concessions on its nuclear arsenal or force posture during Sharif's visit.²¹

In all three cases, the voices of conspiracy were so loud that they drowned out and distracted from the central message of mainstreaming Pakistan's nuclear program. In any event, Islamabad was seemingly ill prepared for negotiation toward normalization. It probably felt pressured from official discussions, publications, and media reports all coming together around the same time. On the basis of these, Islamabad apparently concluded that the terms of any nuclear deal with Washington would require Pakistan to compromise what it considers its vital security interests and would not be palatable domestically. Regional security experts in the United States are well aware that preserving a minimum credible nuclear deterrent posture is of utmost priority to Pakistan's national security policymakers. Perhaps the fundamental stumbling block for any U.S.-Pakistani nuclear negotiation is that the two countries have different interpretations of what “minimum” and “credible” mean. For example, Islamabad contends that its newly minted tactical nuclear weapons are a necessary and reasonable deterrent against India's limited-war doctrine known as Cold Start. Meanwhile, U.S. commentators have expressed concerns over the

the talks would be normalization rather than disarmament.

There are several advantages to a multilateral approach. First, it would involve all stakeholders and influential members of the international community, as was the case with the Iran deal. Second, it would not involve opaque, separate-track dialogues such as those during the Talbott negotiations that followed the 1998 tests. Third, its inclusive nature would make it more difficult for critics to allege favoritism—for example, that China is supporting Pakistan and the United States supporting India. Finally, this approach can be pursued in tandem with the criteria-based and bilateral approaches.

New Delhi, however, historically has opposed the multilateralization of what it considers to be strictly bilateral issues between India and Pakistan, such as the Kashmir dispute. For the reasons explained above, India would prefer the bilateral approach in this case. Yet, China and Russia recently set a precedent in the Shanghai Cooperation Organization (SCO) regarding Indian and Pakistani membership. The two South Asian countries were observers to the SCO, but both were seeking full membership in the organization.²³ China opposed Indian entry unless Pakistan was included; Russia opposed Pakistan. After years of discussions and bilateral talks, China and Russia recently agreed



Dean Calma/IAEA

Rafael Mariano Grossi of Argentina, shown above in a February 2015 photo, currently chairs the Nuclear Suppliers Group.

to the simultaneous entry of India and Pakistan into the NSG. That model could be one way to break the gridlock surrounding Indian and Pakistani membership in the NSG.

A suggested road map for a multilateral approach for simultaneous entry by India and Pakistan into the NSG could contain the following steps:

1. India and Pakistan are treated as normal nuclear states that possess nuclear weapons for national security reasons. Both states should formally reiterate that their nuclear capabilities are exclusively for defensive deterrence purposes.
2. The international community recognizes that nuclear legitimacy for Islamabad and New Delhi is an important step in curtailing the Indian-Pakistani arms race. Normalization would encourage nuclear stability, security, and safety and would induce the cooperation

between the two countries that was described in the 1999 Lahore memorandum of understanding.

3. The two states agree to separate their civilian and military nuclear programs and fuel cycles cleanly and completely and to place the facilities declared as civilian under internationally agreed safeguards.
4. The two states agree to keep nuclear weapons on their lowest alert status, with nuclear warheads separated from their delivery vehicles.
5. The two states agree to adopt the highest global standards of nuclear security and safety and seek maximum assistance in this area from international organizations and countries with advanced nuclear programs.
6. The two states agree to commence a sustained bilateral dialogue for

peace and security with a view toward negotiating and implementing a mutually acceptable arrangement for strategic restraint.

7. The two states agree to facilitate rather than obstruct the commencement of a global FMCT, maintain their nuclear testing moratorium, and pledge to join the CTBT.

Conclusion

India and Pakistan have come a long way in the nearly two decades that have followed the 1998 nuclear tests. It is time for the global nonproliferation regime to open the door to a normal nuclear South Asia and for India and Pakistan to address the international community's legitimate concerns over their respective arms buildups.

As it is, India continues to build capabilities for power projection to match China, while Pakistan is building its capacity to balance against India. The interconnected nature of this strategic competition has the potential to create instability given the volatile nature of regional politics and probability of sudden crises that could rapidly escalate to nuclear deployment and possible use. There is a need for a global initiative that could break this gridlock and move away from international trends by incentivizing the two countries to enter into negotiations for an acceptable place in the world nuclear order.

For the reasons discussed in this article, the most promising approach is a process of multilateral negotiations that establishes criteria that India and Pakistan must meet and involves political negotiations. The goal would be to bring India and Pakistan into the global export control regimes, most notably the NSG, and eventually give the two countries "associate" membership in the NPT as de facto nuclear-weapon-possessing states. This status would not make India and Pakistan full members as NPT nuclear-weapon states, but would recognize the steps taken by an outlier country to undertake all obligations and adopt practices and policies as if it were a de jure NPT nuclear-weapon state.

A notional timeline for this process would be as follows: India and Pakistan

are allowed into the NSG and other export control regimes within the next four years and thus provided with an opportunity to demonstrate responsible stewardship of nuclear capability. The 50th anniversary of the NPT's entry into force, in 2020, would be a propitious moment for the nuclear nonproliferation regime to have solved the issue of the outlier states. Although this article focused on India and Pakistan because of the intensity of their strategic competition, the principle and pathway suggested here could apply to Israeli membership as well. Bringing these outlier states into the fold of the global nonproliferation regime would significantly strengthen the regime while providing the states with incentives to undertake responsible stewardship of nuclear weapons for the benefit of international security.

ENDNOTES

1. Paul Bracken describes the emergence of new nuclear powers in the post-Cold War period as the "second nuclear age." Paul Bracken, *The Second Nuclear Age: Strategy, Danger, and the New Power Politics* (New York: Times Books, 2012). See also Ashley Tellis, Abraham Denmark, and Travis Tanner, eds., *Strategic Asia 2013-2014: Asia in the Second Nuclear Age* (Washington DC: National Bureau of Asian Research, 2013).
2. Gregory D. Koblentz, "Strategic Stability in the Second Nuclear Age," Council on Foreign Relations, *Council Special Report*, No. 71 (November 2014).
3. A memorandum of understanding was part of the Lahore Declaration of 1999, which was signed by Prime Ministers Atal Bihari Vajpayee of India and Nawaz Sharif of Pakistan on February 21, 1999. This was the first bilateral agreement between India and Pakistan after the nuclear tests. The memorandum commits the two sides to discussing security doctrines, arms control, and confidence-building measures to ensure stability. See Toby Dalton, "Beyond Incrementalism: Rethinking Approaches to CBMs and Stability in South Asia," in *Deterrence Stability and Escalation Control in South Asia*, ed. Michael Krepon and Julia Thompson (Washington, DC: Stimson Center, 2013), pp. 187-208.
4. Michael Mandelbaum, "Lessons of the Next Nuclear War," *Foreign Affairs*, No. 74 (March/April 1995).
5. For a comprehensive study of the nuclear strategies and force postures of India and Pakistan, see Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton, NJ: Princeton University Press, 2014).
6. The term "security trilemma" is attributed to Linton Brooks and Mira Rapp-Hooper. Linton Brooks and Mira Rapp-Hooper, "Extended Deterrence, Assurance, and Reassurance in the Pacific During the Second Nuclear Age," in *Strategic Asia 2013-2014: Asia in the Second Nuclear Age*, ed. Ashley Tellis, Abraham Denmark, and Travis Tanner (Washington DC: National Bureau of Asian Research, 2013).
7. See Pierre Goldschmidt, "NSG Membership: A Criteria-Based Approach for Non-NPT States," Carnegie Endowment for International Peace (CEIP), May 24, 2011, <http://carnegieendowment.org/2011/05/24/nsg-membership-criteria-based-approach-for-non-npt-states>; Toby Dalton, Mark Hibbs, and George Perkovich, "A Criteria-Based Approach to Nuclear Cooperation With Pakistan," *Carnegie Endowment for International Peace Policy Outlook*, June 22, 2011, http://carnegieendowment.org/files/nsg_criteria.pdf.
8. Mark Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers* (London: International Institute of Strategic Studies, 2014), pp. 159-164.
9. Toby Dalton and Michael Krepon, "A Normal Nuclear Pakistan," Stimson Center and CEIP, 2015, <http://carnegieendowment.org/files/NormalNuclearPakistan.pdf>.
10. Baqir Sajjad Syed, "Ex-Envoy Sheds Light on Mystery About Failure to Block IAEA India-Specific Deal," *Dawn*, December 19, 2015.
11. Feroz Hassan Khan and Ryan W. French, "U.S.-Pakistan Nuclear Relations: A Strategic Survey," *PASCC Report*, No. 2014-005 (April 2014).
12. The latest Nuclear Threat Initiative (NTI) Nuclear Security Index has introduced two additional factors—sabotage and cybersecurity—in developing the index criteria. See "The 2016 NTI Nuclear Security Index: Theft and Sabotage," n.d., <http://ntiindex.org/behind-the-index/about-the-nti-index/>.
13. Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers*.
14. For a detailed discussion of this issue, see Mark Hibbs, "Toward a Nuclear Suppliers Group Policy for States Not Party to the NPT," CEIP, February 12, 2016, <http://carnegieendowment.org/2016/02/12/toward-nuclear-suppliers-group-policy-for-states-not-party-to-npt/itxg>.
15. Goldschmidt, "NSG Membership."
16. "Nuclear Discrimination Impacting Regional Security, Says Pakistan," *The News* (Pakistan), February 13, 2016.
17. The incidents in 2011 involved CIA contractor Raymond Davis' killing of two Pakistani citizens in January, the raid that killed Osama bin Laden in Abbottabad in May, and an accidental U.S. attack on a Pakistani military post on the Afghan border in November. For a detailed account, see Khan and French, "U.S.-Pakistan Nuclear Relations."
18. David Ignatius, "The U.S. Cannot Afford to Forget Afghanistan and Pakistan," *The Washington Post*, October 6, 2015; David Sanger, "U.S. Exploring Deal to Limit Pakistan's Nuclear Arsenal," *The New York Times*, October 15, 2015.
19. Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers*; Dalton and Krepon, "Normal Nuclear Pakistan."
20. Khan and French, "U.S.-Pakistan Nuclear Relations."
21. "Pakistan Developed Tactical Nukes to 'Deter' India: Foreign Secretary Aizaz Chaudhry," Press Trust of India, October 20, 2015, <http://indianexpress.com/article/world/neighbours/pakistan-developed-tactical-nukes-to-deter-india-aizaz-chaudhry/>. See also "Pakistan With 'Tactical Nukes' Ready to Counter Indian Aggression: Aizaz," *The International News* (Pakistan), October 20, 2015.
22. For a Pakistani perspective, see Mark Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers* (citing Adil Sultan, "Pakistan's Emerging Nuclear Posture: Impact of Drivers and Technology on Nuclear Doctrine," Institute of Strategic Studies, Islamabad, April 17, 2012). For U.S. perspectives, see David O. Smith, "The U.S. Experience With Tactical Nuclear Weapons: Lessons for South Asia" in *Deterrence Stability and Escalation Control in South Asia*, ed. Michael Krepon and Julia Thompson (Washington, DC: Henry L. Stimson Center, 2013), pp. 65-92; David J. Carl, "Pakistan's Evolving Nuclear Weapons Posture," *The Nonproliferation Review*, Vol. 21, Nos. 3-4 (September-December 2014): 317-336.
23. The Shanghai Cooperation Organization is a regional organization led by China and Russia and involving six Central Asian states. Its objective is to enhance economic cooperation and combat terrorism, separatism, and extremism. For details, see Asia Regional Integration Center, "Shanghai Cooperation Organization (SCO)," n.d., <https://aric.adb.org/initiative/shanghai-cooperation-organization>.

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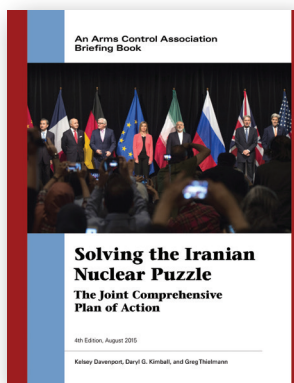
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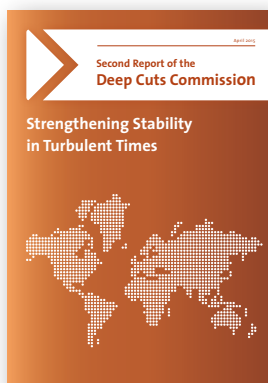
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